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## ABSTRACT

The document presents a vocational evaluation process based on a diverse mixture of proven principles and practices that have been used in school-based vocational evaluation programs for handicapped students. Following a foreword (part 1), part 2 offers several definitions of vocational evaluation and vocational assessment. Part 3 compares school-based and rehabilitation-oriented vocational evaluation programs in terms of physical facilities, target populations, tools and techniques, goals and objectives, staffing, and enabling legislation. In part 4, tools of vocational evaluation are defined and their applications described. Tools are divided into three categories: situations as tools (on-the-job evaluation, work samples, psychometrics), resource tools (occupational information, referral information), and applied tools (interviewing procedures, observational procedures, reporting procedures, job analysis, learning assessment). The purpose of part 5 is to describe the vocational evaluation process as it typically exists within a Comprehensive Vocational Evaluation Center (CVEC). The CVEC follows an eight step approach: referral/intake, orientation, initial interview, individual evaluation planning, formal testing/feedback, staffing, final report, and follow-up. A sixth part considers the relationship between vocational evaluation and the individualized education program, while part 7 offers a summary of vocational evaluation. Appendixes include a vocational evaluation system outline, a form with suggested guidelines for evaluating work samples, a report titled "The Mobile Unit for Vocational Evaluation," a sample vocational evaluation referral form, an outline for an initial interview, an example of a well-planned and documented referral to an evaluation unit from a field counselor, and a vocational evaluation final report. (SW)

# VOCATIONAL EVALUATION AND ASSESSMENT

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## IN SCHOOL SETTINGS

RESEARCH AND TRAINING CENTER  
STOUT VOCATIONAL REHABILITATION INSTITUTE



# ***VOCATIONAL EVALUATION AND ASSESSMENT IN SCHOOL SETTINGS***

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of Wisconsin-Stout

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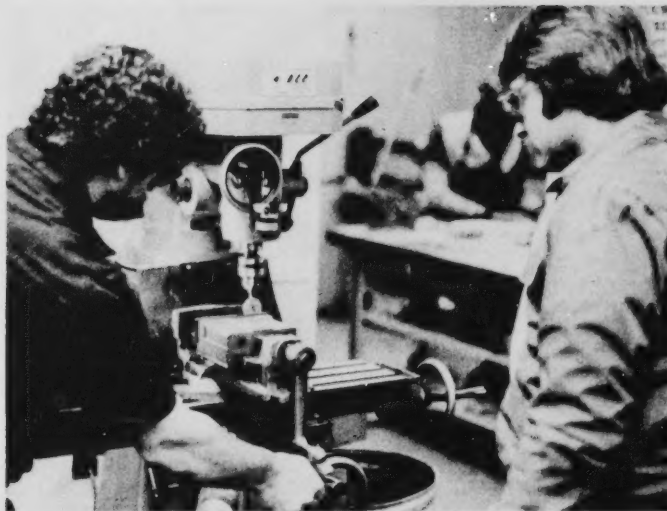


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*Vocational Evaluation and Assessment in School Settings*



## FOREWORD

Vocational evaluation has long been recognized as an integral service component of the State-Federal vocational rehabilitation system. In recent years, however, it has gained increased attention among educators interested in the assessment and education of handicapped students. Indeed, Peterson (1981) indicated that, "strong evidence exists that a national trend towards the inclusion of vocational evaluation as an integral part of secondary special and vocational education is developing" (p. 112). Much of the impetus for this interest has been the growing realization that many of the more traditional forms of school-based career assessment and development have not been entirely adequate for handicapped and other special needs students. Sitlington and Wimmer (1978) indicated:

Vocational assessment has been the responsibility of rehabilitation centers in the past. If career education is to be a viable framework for American education and realistically prepare students to function as well-adjusted adults, vocational assessment must become the responsibility of the public schools. Handicapped students, in particular, need the systematic feedback from these procedures to aid in occupational decision making from the elementary through the secondary school years. It is not enough to make them aware of occupations available to them without providing the feedback that lets their occupational choice be realistic (p. 85).

Special educators, administrators, vocational educators, counseling and guidance personnel, as well as students and parents, have all found vocational evaluation to be a valuable tool in instructional design, individual education planning, and career exploration. The value of vocational evaluation programs within school systems was described by the Maryland State Department of Education (1977):

Vocational evaluation can provide invaluable information to students in pointing out potential career areas and in planning future learning experiences. The process of evaluation is firmly grounded in the conviction that every student has potential which can lead to competence in some occupational area (p. i.).

A survey by Peterson (1981) of vocational assessment personnel in Texas indicated that the survey group "... overwhelmingly agreed (87%) that 'comprehensive vocational assessment is crucial in developing an appropriate educational program for secondary handicapped students'" (p. 110).

Perhaps the most sweeping statement of support for developing vocational evaluation services in schools was presented by the New Jersey Department of Education (1978) which indicated:

... ideally vocational assessment should be an integral part of the student's total career development starting from preschool and continuing through adulthood (p. 5).

The vocational evaluation process described in this publication is not wholly based on any single "model" vocational evaluation program. Instead, it attempts to present a diverse mixture of proven principles and practices that have been utilized in school-based vocational evaluation programs in Maryland, New Jersey, Texas, Florida, Minnesota and other states; as well as programs that have developed within the State-Federal Vocational Rehabilitation System during the last two decades. As a model in and of itself, *Vocational Evaluation and Assessment in School Settings* offers great flexibility for personnel interested in adapting and modifying these proven techniques and practices to the unique needs of their students and educational setting. This publication is not meant to provide a cookbook approach to implementing any single, highly-structured model for vocational assessment. Instead, it is hoped that with an understanding of the fundamental principles and practices of vocational evaluation and knowledge of the tools and techniques used, readers will gain a sound rationale for developing these services within their school setting and most importantly, will be able to do so in a manner that will best address the special needs of their students, their schools, and their community.



*Vocational Evaluation and Assessment in School Settings*



## VOCATIONAL EVALUATION AND VOCATIONAL ASSESSMENT

The fundamental principles, practices, and goals of vocational evaluation and vocational assessment are rooted in a multi-disciplinary approach to individual assessment. Borrowing from the fields of psychology, industrial education, counseling, and occupational therapy; vocational evaluation has evolved into a distinct profession within the field of vocational rehabilitation. Sometimes referred to as "vocational assessment" within education, vocational evaluation may be readily distinguished from other forms of assessment by its emphasis on using real or simulated work as the basis for determining individual vocational competencies and needs. The Vocational Evaluation and Work Adjustment Association (1975) defined vocational evaluation, in part as:

A comprehensive process that systematically uses work, real or simulated, as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational development. Vocational evaluation incorporates medical, psychological, social, vocational, educational, cultural, and economic data in the attainment of the goals of the evaluation process (p. 86).

Pruitt (1977) defined the purpose of vocational evaluation:

... to provide an assessment of individuals who are vocationally handicapped or those individuals who may be vocationally handicapped at the time they enter the employment market. (This is not to imply that the work evaluation approach is not applicable for non-handicapped people.) These individuals may have a physical or mental disability (emotional problem or retardation) or the vocational handicap may have resulted from cultural or social deprivation (p. 3).

The Vocational Evaluation and Work Adjustment Association (1975) pointed out that "the uniqueness of vocational evaluation lies in its use of work related activities and situations to assess human potential as it relates to the world of work" (p. 51). With this information in mind, it is apparent that there are three primary factors which help distinguish vocational evaluation from other kinds of individual assessment.

1. Vocational evaluation is work-oriented, emphasizing the use of real or simulated work as a basis for assessing present and future vocational needs and capabilities.
2. Vocational evaluation is *primarily* designed to serve a handicapped population, although it can also benefit the nonhandicapped.
3. Vocational evaluation relies on a diverse mix of assessment tools and techniques, which taken together, constitute a unique approach to individual vocational assessment.

As suggested previously, the term vocational assessment is often used interchangeably with vocational evaluation when considered within educational settings. The Occupational Curriculum Lab (1982) described vocational assessment as a developmental, holistic process whose goals are to provide:

1. A student-centered learning process to enhance individual career awareness, growth, exploration, and subsequent behavior change.
2. Relevant and objective career information that can be used for educational, habilitative life planning (p. 1).

Dahl (1980) defined vocational assessment as:

. . . a comprehensive process conducted over a period of time, involving a multi-disciplinary team . . . with the purpose of identifying individual characteristics, education, training, and placement needs, which provides educators the basis for planning an individual's program, and which provides the individual with insight into his or her vocational potential (p. 1).

Regardless of whether the term vocational evaluation or vocational assessment is used, the fundamental goal remains the same: to provide a reliable, individualized approach to determining the unique vocational needs and capabilities of students so that their vocational development may be facilitated. For purposes of this publication, the terms are used interchangeably. Whether developmental in nature or not, the basic principles, practices, and goals of vocational evaluation and vocational assessment remain closely allied.

*Vocational Evaluation and Assessment in School Settings*





## ***COMPARISON BETWEEN SCHOOL-BASED AND REHABILITATION-ORIENTED VOCATIONAL EVALUATION PROGRAMS***

Vocational evaluation has evolved into a distinct profession within the field of vocational rehabilitation. It is important to note, however, that significant differences exist with regard to the principles and practices of vocational evaluation services as they are carried out in vocational rehabilitation-oriented settings vs. school settings. Indeed, the New Jersey State Department of Education (1978) pointed out:

A void has existed in the literature pertaining to vocational evaluation of students within the field of education. The present state of the art concerned itself with vocational rehabilitation, and as a result, the concepts and strategies do not lend themselves readily to public education (p. ii).

The purpose of this section is to compare and contrast many of the basic characteristics of vocational evaluation services in school settings vs. rehabilitation-oriented settings. Primary consideration is given to differences in physical facilities, target populations, tools and techniques, goals and objectives, staffing and enabling legislation.

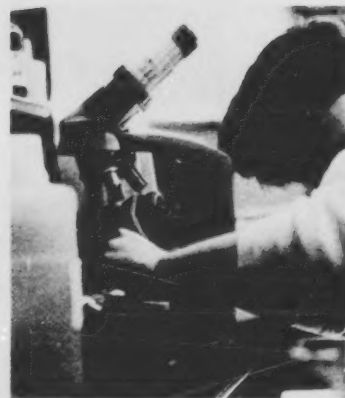
### ***PHYSICAL FACILITIES***

The National Association of Vocational Education Special Needs Personnel (NAVESNP) Committee on Vocational Assessment (1981) described six "administrative models" for vocational evaluation services in school settings:

1. Assessment in the special education classroom
2. Assessment in occupational exploration
3. Integrated vocational assessment



4. Vocational evaluation center
5. Contracted vocational assessment
6. Mobile vocational evaluation units (n. p.).



Based on these administrative models, it is evident that vocational evaluation services in school settings generally take place in a relatively specialized classroom environment or within a formal diagnostic setting which is part of the larger academic institution. Although the student may be involved in a more work-oriented diagnostic setting than the mainstream of the school, he or she is still functioning within an academically-oriented setting. The exception to this would be "contracted vocational assessment" wherein the student is typically referred to a rehabilitation setting outside the school setting.

Vocational evaluation programs in rehabilitation settings are generally housed within sheltered workshops. These workshops may be extremely work-oriented, handling many different kinds of business contracts or they may be smaller, but still retaining the work and job training orientation. In any case, the physical setting in which the vocational evaluation unit is placed clearly influences the orientation and methodologies. Vocational evaluation programs in school settings often tend to rely heavily on psychometric tasks and "simulated" work; whereas vocational evaluation services in rehabilitation settings, particularly sheltered workshops, often rely on job tryouts within the workshop and other paid work activities that take place in an industrial setting.

## TARGET POPULATIONS

The NAVESNP Committee on Vocational Assessment (1981) provided some general guidelines as to the target population for vocational evaluation services in school settings.

Comprehensive vocational assessment services are considered to be an invaluable tool for use in career education planning for all students. However, students with special needs—especially handicapped or disadvantaged—should have priority in receiving comprehensive vocational assessment evaluation services.

Formal vocational assessment should occur approximately one year prior to placement in vocational education. This will usually occur around the ninth and tenth grade. However, informal and less intensive vocational assessment is extremely helpful in guiding the student into prevocational types of activities and should begin as early as age 12 or 13. Reevaluation may often be scheduled to update recommendations since students may improve skills (n. p.).

Peterson (1981) more clearly defines the target population in school settings based on his survey of vocational evaluation personnel in Texas:

Vocational assessment should be made available to all students as an on-going, integral part of their school career education program. However, the priority target populations should be those with special needs—both the handicapped and the disadvantaged. The survey population ranked potential populations in the following order based on their overall scores:

- mildly and moderately handicapped students . . .
- disadvantaged students . . .
- regular students . . .
- severely and profoundly handicapped students . . .

Vocational assessment should begin in grades 7-8 and continue periodically throughout secondary school (p. 110).

The Maryland State Department of Education (1977) broadly characterized their target population as:

Vocational evaluation in the public schools serves primarily handicapped and disadvantaged secondary students ages 15 and up on a ninth grade level and higher.

The federal definitions for these two groups follow and are taken from the VEA Amendments.

#### *Handicapped*

'Handicapped persons means mentally retarded, hard-of-hearing, deaf, speech-impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health-impaired persons who by reason of their handicapped condition cannot succeed in a regular vocational or consumer and homemaking education program without special educational assistance or who require a modified vocational or consumer and homemaking education program.'

Characteristics of handicapped persons who meet vocational evaluation referral criteria include students who:

1. are 15 years old or older;
2. are experiencing academic, mental, emotional, adjustment, or physical difficulty in their classes;
3. are enrolled in the ninth grade level, or above, of the special educational program;
4. cannot identify strong or weak vocational skills and interests;
5. possess unrealistic vocational goals;
6. have experienced failure in part-time or full-time employment;
7. have experienced failure in a work-study program;
8. cannot identify a wide range of vocational choices;
9. do not exhibit appropriate work behavior;

10. lack direction regarding a viable vocational program plan;
11. are enrolled in regular classes and possess one or more of these handicaps;
12. are enrolled in junior or senior high special education classes (some ungraded); and
13. are over 15 and enrolled in a special education school.

#### *Disadvantaged*

The disadvantaged are persons who: (1) have academic or economic disadvantages and (2) require special services, assistance or programs in order to enable them to succeed in vocational education programs. Characteristics of disadvantaged persons who meet vocational evaluation referral criteria include students who:

1. are 15 years of age or older;
2. are enrolled in ninth grade, or above;
3. have one or more of the following academic or economic disadvantages:
  - a. lack reading and writing skills;
  - b. lack mathematical skills;
  - c. perform below grade level;
  - d. come from a family with an income at or below national poverty level;
  - e. come from homes where parents are unemployed;
  - f. are recipients of public assistance;
  - g. are institutionalized or under state guardianship.
4. because of the above conditions;
  - a. do not have, at the time of entrance into a vocational educational program, the prerequisites for success in the program, or who
  - b. are enrolled in a vocational education program, but require supportive services or special programs to enable them to meet the requirements for the program.
5. need to develop an awareness and identification of their vocational skills and interests, work behavior, and employment potential because of: no previous experience in vocational areas, unidentified basic skills, inappropriately or unrealistically oriented to occupations or proper work behavior (pp. 4-6).

Other states, like Texas, have provided different guidelines concerning which students should receive vocational evaluation services. The Texas Education Agency supports vocational assessment services for all secondary age handicapped students with "additional special considerations . . . for assessing the more severely handicapped"

(p. 2). The New Jersey State Department of Education (1978) also developed guidelines for determining who should receive vocational evaluation services:

The following are general guidelines that may be used when deciding whether a student should be considered for vocational evaluation:

1. Classification by the Child Study Team.
2. Unemployability or a need for extensive vocational training as determined by the Child Study Team or guidance counselor for a classified or non-classified student.
3. Evidence of failure in the classroom preventing the student from succeeding in the academic environment.
4. Negative attitude towards the comprehensive school as a result of poor academic achievement.
5. Uncertainty on part of student as to career goals.
6. Performance below appropriate grade level.
7. Determination of whether a student's career goals are consistent with his/her level of performance.
8. Motivation towards attending vocational school as evidenced by:
  - a. Success in industrial arts courses.
  - b. Exposure to the trades through career education, family or employment (p. 30).

From the foregoing information, a number of observations may be drawn about the target population for vocational evaluation programs in school settings:

1. The *primary* population is mildly handicapped and disadvantaged or other special needs students; although, vocational evaluation services are seen as potentially beneficial for all students.
2. Vocational evaluation services may be recommended as early as age 12 and reevaluation may occur throughout the student's school involvement, and in so doing, take on a developmental component.
3. Vocational evaluation is viewed as part of the student's career education or vocational education.
4. Vocational evaluation services are provided to a relatively homogeneous group in terms of age, severity of disability and prior work experience.
5. Students referred to vocational evaluation generally suffer from a variety of educational deficiencies.

Although vocational evaluation services in rehabilitation settings are generally equipped to serve a much more diverse group of people than school-based programs (in terms of age, severity of disability, work experience, academic preparation, job goals, etc.) in actual practice the population served is very similar to school programs. The Vocational Evaluation and Work Adjustment Association (1975) indicated:



. . . The typical vocational evaluation client can be described as follows: the client is a single, white male between the ages of 16 and 19. He has less than a high school education and has never worked . . . his listed handicapping conditions are mental retardation and educational deficiencies. He has multiple functional disabilities which limit him vocationally, including basic attitudinal and personality problems relating to self-acceptance, self-perception, inter-personal relationships, and emotional stability. Additionally, he lacks realistic goals, decision-making skills, and knowledge relating to the job market and obtaining a job (p. 24).

It is evident, then, that although rehabilitation-oriented facilities may be prepared to serve a more diverse group of handicapped clients than school-based programs, in actual practice, the people that are actually served are very similar in terms of work experience, educational preparation, and vocational needs.

## ***TOOLS AND TECHNIQUES***

Section IV describes the three major categories of vocational evaluation tools and techniques as follows:

### **I. SITUATIONS AS TOOLS**

- A. On-the-job evaluation**
- B. Work samples**
- C. Psychometrics**

### **II. RESOURCE TOOLS**

- A. Occupational information**
- B. Referral information**

### **III. APPLIED TOOLS**

- A. Interviewing procedures**
- B. Observational procedures**
- C. Reporting procedures**
- D. Job analysis**
- E. Learning assessment**





All of these assessment tools and techniques are used, to some extent, by both school-based and rehabilitation-oriented vocational evaluation programs. A distinction can, however, be drawn based on differences in emphasis. Because rehabilitation programs are traditionally more work-oriented, on-the-job evaluation procedures including job site evaluation, trial training evaluation, and simulated job station (each is more fully described in the next section) are more often utilized in these settings. School-based programs, on the other hand, more frequently utilize psychometric tests, work samples, and career development/exploration activities. This is not to say, however, that there is no overlap. Many rehabilitation-oriented programs rely heavily on psychometric testing and the various resource tools and applied tools found in school settings. Similarly, school-based vocational evaluation programs may use work study sites in the community for assessment purposes and in some cases, students may be placed in vocational education classrooms for short pe-

riods of assessment. Perhaps the important point to keep in mind is that the tools and techniques used by rehabilitation-oriented programs may be more work-oriented than those used in school-based programs but this is certainly not always the case.

## GOALS AND OBJECTIVES

Clearly there is great overlap between the goals and objectives of vocational evaluation programs in schools and rehabilitation centers. In the broadest sense, they both share the common goal of facilitating the student/client's vocational development. Yet, with regard to specific objectives, some underlying differences in philosophy do exist.

Vocational evaluation developed over the last two decades, primarily as a service component of the State-Federal vocational rehabilitation system. As such, it has served two major purposes: 1) To serve as a diagnostic service for purposes of eligibility determination and; 2) for those diagnosed as eligible for further vocational rehabilitation services, the vocational evaluation information was to be used to help facilitate the individualized rehabilitation planning process. Thus, it has been used as both a screening tool and as a planning tool. In both cases, the ultimate objective remained the same, to provide a vital service that would help ensure the most satisfactory and timely job placement possible. Job placement in competitive employment is the final goal



of vocational rehabilitation services as provided in the State-Federal vocational rehabilitation system. It is not surprising then that as part of that service delivery system, the most basic objective of vocational evaluation services is to enhance the job placement process.

School-based vocational evaluation programs frequently place less emphasis on actual job placement of the student. Instead, evaluation is seen as a valuable tool in facilitating the Individualized Education Program (IEP) process which is not necessarily job placement oriented, particularly in the short run. Thus, vocational evaluation services in educational settings frequently take on a developmental role, with a major objective being to assist the student's career education. If job placement is a goal, it is often secondary, involving short-term work study opportunities primarily designed to help develop the student's career awareness and development. Long-term job placement frequently is not, in and of itself, the ultimate goal of vocational evaluation services in school settings. It is apparent then that providing diagnostic information which can aid the planning process is a goal common to both rehabilitation-oriented and school-based programs but basic differences do exist with regard to emphasis on job placement and career development.

Finally, regardless of the setting in which it is used, vocational evaluation has four fundamental goals which, taken together, clearly distinguish it as a unique form of assessment. These goals include:

1. Assessment
2. Prescription
3. Prediction
4. Behavior change

As an assessment tool, vocational evaluation services are certainly concerned with diagnosing work-related behavioral and skill deficits. But beyond this, vocational evaluation also emphasizes the identification of appropriate remedial or treatment-oriented services which are likely to facilitate the vocational development of the student/client. It is then possible to predict the likely functional outcomes which will occur as the direct result of these services. Finally, perhaps the most distinctive characteristic of vocational evaluation as an assessment tool is that beyond assessment, prescription, and prediction, it also has as one of its main objectives to facilitate behavior change during the actual assessment process. Vocational evaluation places strong emphasis on communication and feedback between evaluation staff and the student/client during the evaluation process. As a result, students entering the program may initially express uncertainty with regard to vocational interests, goals, and capabilities, as well as what constitutes appropriate work-related behavior, interviewing/job search activities, etc. At the conclusion of the vocational evaluation, however, many students will have experienced significant change with regard to their work attitudes, interests, and temperaments. Along with the vocational evaluation team, they will have identified specific job goals as well as courses of action which they will follow to achieve these goals. Thus, vocational evaluation is more than an isolated performance assessment process. It represents a dynamic form of interaction between evaluation staff and student, with the end result being that the student will have a clearer, more immediate understanding of his or her vocational needs and capabilities.

## STAFFING

The makeup of the vocational evaluation staff, whether functioning within a school setting or rehabilitation setting, will vary greatly according to the different goals and objectives established within each setting. Generally speaking, there is no one single set of qualifications for vocational evaluators in either school settings or rehabilitation settings. Indeed, the problem of establishing certification requirements for vocational evaluators in either setting has been difficult because the duties and necessary qualifications may vary dramatically.

Generally, speaking, the National Association of Vocational Education Special Needs Personnel (1981) defined the vocational evaluation specialist as:

A person with specific training in vocational evaluation (who) should be responsible for implementing and/or coordinating the evaluation process (n. p.).

This same working paper went on to suggest the background and training of vocational evaluation specialists.

There should be a core of required courses (such as vocational evaluation diagnosis, work sample development, educational research, medical aspects of disabilities, report writing, psychometrics, career information, and a supervised practicum) to be certified as a vocational evaluator. These requirements should be specified in state policy based upon input of professional vocational educators. Vocational evaluators in schools should take at least an introductory graduate course in vocational education and special education and should preferably possess a Master's Degree and have at least one year of work experience in a business or there are several professional areas currently that lend themselves to the field of vocational evaluation (including special education, vocational education, rehabilitation, etc.). Persons with degrees in these areas could add certification in vocational evaluation by taking select courses in vocational evaluation (n. p.).

Peterson (1981) in this survey of vocational assessment personnel in Texas found:

According to the respondents, vocational assessment must be implemented and coordinated by a person with training in vocational assessment (p. 111).

Peterson (1981) also went on to indicate:

Vocational assessment specialists must be trained professionals. They should possess at least a Master's Degree and should be paid at the salary level minimally equal to that of the vocational counselor (p. 111).

The Maryland State Department of Educational (1977) provided some stringent guidelines for vocational evaluators in the State of Maryland:

1. A Bachelor's Degree, B.S. or B.A., or Vocational Instructor Certificate  
and



2. The following approved courses:

*6 credits—Vocational Education*

Such as History and Principles of Vocational Education, Occupational Information or Career Information (three credits may be waived for 12 months of paid work experience in business or industry).

*3 credits—Tests and Measurements*

*6 credits—Counseling*

3 — General Theory

Such as Theories and Techniques of Counseling, Group Processes, Human Growth and Development.

3 — Special Needs Population Counseling

Such as Counseling of Minority Groups.

*3 credits—Vocational Evaluation*

Or one semester approved, supervised field experience in a vocational evaluation unit under the direction of a certificated evaluator.

*6 credits—Special Education or Special Needs*

Such as Introduction of Special Education, Psychology of the Exceptional Child, Sociology of Juvenile Delinquency or the special learning problems of such groups of students as non-readers, the gifted, the disadvantaged, and the handicapped.

*3 credits—from any of the following areas:*

*Psychology*

Such as Abnormal Psychology or Industrial Psychology

*Industrial Arts*

Such as Modern Industry or Industrial Sociology

*Vocational Education*

Such as Occupational Analysis or Training Aids Development (pp. 16-17).

Noll (1977) in a nationwide survey of the certification and qualifications of vocational evaluators employed in vocational education found, in part, that 42% of those surveyed had master's degrees with 54% of this group having degrees in various educational disciplines including: 1) special education—16%; 2) vocational industrial education—12%; and 3) history or social studies—5%. Guidance and counseling degrees were held by 22% of the evaluators responding, and 8% had degrees in administration or supervision. A master's degree in vocational rehabilitation with a specialty in vocational evaluation was held by 13% of the respondents and 15% of the evaluators had a degree in psychology. Perhaps the most notable outcome of this study was that 21% of the respondents indicated that they had no specific training in vocational evaluation. Another 21% indicated that their specific training was limited to workshops conducted by

universities or commercial evaluation systems training programs. Only 4% of the evaluators indicated having a graduate degree in vocational rehabilitation with a specialization in vocational evaluation along with workshop training. On the other hand, 60% of those surveyed, indicated they had specific experience as evaluators, coordinators of evaluation or evaluation aides.

In general, the training and experience of vocational evaluators in rehabilitation settings has been closely allied with vocational rehabilitation. Indeed, the vocational evaluator has long been closely identified with the vocational rehabilitation counselor, although significant differences do exist. The Vocational Evaluation and Work Adjustment Association (1975) indicated that "the primary overlap in the field of vocational rehabilitation would seem to be between the vocational rehabilitation counselor and the vocational evaluator" (p. 125).

This same report also pointed out that "early role models and curricular offerings for evaluators were heavily influenced by those existing for the counselor. Current survey data indicates a 50% overlap in the 10 principle areas of training . . ." (p. 125). Thus, it is apparent that more emphasis is placed on preparation and training in vocational rehabilitation practices among vocational evaluation personnel in rehabilitation settings than in school settings where evaluators typically have less experience in rehabilitation and more in education. This is not surprising. It should also be recognized that in both settings, highly competent staff can be found whose primary background is in other fields including psychology, industrial arts and counseling.

Certification continues to be an ongoing matter of concern among vocational evaluators working in either setting. In many respects, developing the certification process has helped point out many of the distinctions between the roles and responsibilities of evaluation personnel in each setting. At present, certification standards for





vocational evaluation personnel in both rehabilitation settings and school settings are based, in large part, on the profession's close historical relationship with the State-Federal vocational rehabilitation system. Peterson (1981) points out that the "Vocational Evaluation and Work Adjustment Association (VEWAA) is presently developing a professional certification procedure that uses competency studies based on a rehabilitation model of vocational evaluation" (p. 111). Yet, as Peterson goes on to indicate, several additional competencies are needed by school-based personnel, including:

- an intense understanding of career development and development psychology
- an understanding of vocational education
- an understanding of special education
- a knowledge of career education for handicapped persons
- a highly developed coordination ability
- an understanding of adolescent handicapped persons (p. 111).

For now, certification among vocational evaluation personnel in either setting remains an open concern. Certification requirements, if they do exist, vary from state to state. In school-based programs, vocational evaluators are frequently certified in related fields such as counseling. Within rehabilitation settings, certification of vocational evaluators is rarely required, at present. In some cases, however, qualifications may be based on completion of a graduate program in rehabilitation with a special emphasis in vocational evaluation.

Thus far, only the vocational evaluator has been described; however, it is important to note that vocational evaluation is a team-oriented assessment process, and as a result, other important personnel may be found in vocational evaluation programs in both school and rehabilitation settings. The NAVESNP Committee on Vocational Assessment (1981) briefly described the members of the school-based assessment team.

Vocational assessment in schools is best implemented as a team effort. Many individuals, from administrators to counselors to instructors, should be involved in the vocational evaluation process. The special education teacher, vocational instructor, and the vocational evaluator should work cooperatively in a team effort to facilitate an appropriate vocational evaluation. Paraprofessionals may be utilized. Their involvement, however, should be primarily for the administration of specific evaluation tools under the direction of the trained, professional vocational evaluation specialist (n. p.).

The Maryland State Department of Education (1977) provided specific descriptions of vocational evaluation technician, vocational evaluation secretary, counselor and teacher personnel.

The *vocational evaluation technician* should have experience in working with special needs youth and/or a broad experience in vocational diversification. The individual should have an interest in working with handicapped and/or disadvantaged youth. He should be able to accept supervision and work under the direction of the unit evaluator. He should also have knowledge of the vocational offerings within the school system and be familiar with the vocational evalu-

ator. The technician should be able to assume control and responsibility of the unit.

The technician acts as an assistant to the vocational evaluator in performing the following tasks:

1. Orients students, potential evaluatees, and visitors to the vocational evaluation program, explains the vocational evaluation process and its purpose, provides tours of the unit;
2. Provides input to the vocational evaluator regarding assessment of work sample performances and observations of work behavior;
3. Administers some psychometrics, interest surveys, dexterity tests and work samples;
4. Maintains work samples by replacing expendable materials, repairs broken equipment and tools, sets up work samples in a specified manner for evaluatees, and maintains current inventory of expendable supplies;
5. Operates a wide variety of hand and power tools and machinery during the course of developing or demonstrating work samples;
6. Operates a variety of audio-visual equipment and office machines;
7. Checks work samples for student accuracy, scores performances based on normative data, and relates results to the student;
8. Provides occupational information to students (resources available within the school system, employment opportunities available within the communities);
9. Assists with record-keeping and minimal clerical duties (assembling student evaluation data, collecting observational information, updating evaluatee files, duplication of printed materials);
10. Assists with students' logistic and physical needs (loading and unloading of buses, supervising students to and from the cafeteria, assisting handicapped students with personal needs).

The technician must have the ability to relate well and work effectively with:

1. Students from varied vocational, social, economic, cultural and educational backgrounds;
2. Students of various physical, mental and emotional handicaps;
3. Vocational instructors, teachers, parents and the community;
4. All students in a non-directive, non-counseling, non-teaching, but cooperative manner.

The technician must possess the willingness and enthusiasm to:

1. Receive on-the-job training;

2. Participate in occasional workshops or inservice training;
3. Receive supervision from the vocational evaluators;
4. Assimilate and perfect proficiencies in the conceptual and academic requirements of the job.

Academically, the technician should possess a high school diploma or equivalency, but two years of college or more are preferred. He needs the physical capacity and good health to perform the job.

Experience in one or more of the following areas of employment or training is needed: industry, industrial arts or vocational education instruction of students; vocational or rehabilitation counseling; college courses in sociology, psychology, industrial arts, vocational subjects, or related fields; previous educational or rehabilitation technician or aide employment.

The *vocational evaluation secretary* performs all the duties generally expected of good, efficient office personnel. In addition to normal routines, the secretary in this case may be asked to assist the technician or fill in for him in his absence. The vocational evaluation secretary may also assist in administering and scoring a variety of standardized and diagnostic tests, as well as in compiling and evaluating statistical and evaluative reports.

With on-the-job training, the secretary should have a thorough knowledge of all work samples because of the intricate commonalities of the evaluation team.

In order to establish the best public relations, communication and rapport possible in the interests of all students evaluated, some guidelines should be established as to essentials needed by school personnel, particularly the guidance or vocational counselor.

In most school situations, the evaluation staff disseminates a packet of information to each school which includes the general purpose of the program, conditions of acceptance (such as handicapped and/or disadvantaged), and information needed from the home school prior to each student's entrance into evaluation. Upon this contact with the school, the counselor should become an interdependent and responsible member of the vocational evaluation team. Obtaining names of prospective students who will participate in the evaluation process is one duty a counselor will perform. Another commitment will be to provide a brief follow-up report which will indicate changes in class schedules, vocational course information, grades and other pertinent data which might be appropriate for all concerned.

A school counselor can provide invaluable help in parental conferences, interpretation of the evaluation reports, student orientation to vocational evaluation and in providing biographical data.

## Chart I

### **The Role of Guidance Counselors in the Vocational Evaluation Process.**

|                                                                                                                                                             |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Student Selection</b>                                                                                                                                    | <b>B</b> |
| <b>Student Referral</b>                                                                                                                                     | <b>A</b> |
| <b>Biographical Data</b>                                                                                                                                    | <b>A</b> |
| <b>Student Orientation</b>                                                                                                                                  | <b>B</b> |
| <b>Teacher &amp; Staff Orientation</b>                                                                                                                      | <b>B</b> |
| <b>Actual Evaluation of Students<br/>(Occupational Information,<br/>Work Sampling, Psychometrics,<br/>Observation of Behavior,<br/>Feedback to Student)</b> | <b>C</b> |
| <b>Routing the Evaluation<br/>Report</b>                                                                                                                    | <b>A</b> |
| <b>Interpretation of V.E. Results</b>                                                                                                                       | <b>B</b> |
| <b>Staffings with school staff,<br/>supportive personnel and<br/>outside agents</b>                                                                         | <b>B</b> |
| <b>Parent Conferences</b>                                                                                                                                   | <b>A</b> |
| <b>Follow-up/Post-Evaluation<br/>Activities</b>                                                                                                             | <b>A</b> |

---

**A — Primary Counselor Responsibility**

**B — Shared Counselor Responsibility**

**C — Periodic Observation or Participation  
Welcomed**

*Source: Vocational Evaluation in Maryland Public Schools: A Model Guide for Student Assessment, 1977.*





Coordinating the implementation of recommendations from the vocational evaluation report will encompass the focal point of the counselor's responsibility within the vocational evaluation process.

Chart I summarizes the role of the counselor in the evaluative process.

*Teacher* involvement within the total process should be emphasized and used resourcefully as he often "knows" students better than other school personnel and is in a position to implement recommendations. His understanding of the process will enable him to make "practical application" and will assist the students in seeing the correlation between a mastery of academic skills and future job success (p. 17-19).

Nadolsky (1974) provided "guidelines for the classification and utilization of vocational evaluation personnel." These guidelines are useful for either school-based or rehabilitation-oriented vocational evaluation programs. Seven positions make up this classification scheme which includes the following: 1) Vocational Evaluation Aide I, 2) Vocational Evaluation Aide II, 3) Vocational Evaluation Technician I, 4) Vocational Evaluation Technician II, 5) Vocational Evaluator I, 6) Vocational Evaluator II, and 7) Vocational Evaluator III. The aide positions focus primarily on outreach activities. Actual involvement in the assessment process is limited, primarily involving the routine preparation of test instruments for administration by other personnel. No specific educational preparation is suggested. The technician positions, on the other hand, do involve actual assessment activities with the students/clients. Observing and recording behaviors, scoring tests and other closely related activities are the responsibilities of the technicians, who function under the direct supervision of the vocational evaluators. Recommended educational and job experience for technicians includes a high school diploma and direct work experience in human service fields such as social work, rehabilitation, psychology, etc. College preparation in these related fields is also recommended. The vocational evaluator positions require a minimum of a Bachelor's Degree in rehabilitation, industrial arts, special education, psychology, or related fields. Job experience varies dramatically from the entry level Vocational Evaluator I position which primarily involves on-the-job training, to the Vocational Evaluator III position which is based on three years of direct work experience in vocational evaluation or a Master's Degree in vocational evaluation and one year's direct experience. Most importantly, the job duties may range from simply gathering data and working with student/clients on an individual basis, as in the case of the Vocational Evaluator I, to managing and developing much of the overall vocational evaluation program, as in the case of the Vocational Evaluator III.

From the foregoing information, it is evident that many different individuals, with widely varying job duties, make up the vocational evaluation staff. The diversity of the staff depends to a large extent on the size and function of the program. In addition to the regular staff members who work with students directly on a daily basis, additional personnel including psychologists, social workers, administrators and others are typically important members of the evaluation team. Perhaps the most important point to keep in mind is that the role and make-up of the vocational evaluation staff is largely defined by the setting in which they must function. It is not surprising that vocational evaluation staff in school-based programs often tend to have more preparation and experience within an "educational model." Whereas, vocational evaluation staff in rehabilitation-oriented settings tend to work from a "vocational rehabilitation model." Certification

may lessen this distinction somewhat as educational preparation and job experience in vocational/special needs education, as well as rehabilitation practice and theory come together to form many of the basic competencies of the certified vocational evaluator.

## **ENABLING LEGISLATION**

The growth of vocational evaluation services both within school and rehabilitation settings has been stimulated by Federal legislation mandating improved services for handicapped children and adults. An increasing emphasis on individual assessment, individual program planning and vocational training has contributed to important legislation that has indirectly encouraged the growth and development of vocational evaluation programs in both settings. Much of this growth is the direct result of legislative mandates within the field of vocational rehabilitation. Peterson et al. (1981) pointed out:

The vocational rehabilitation system has continued to develop in the last half of the twentieth century and has spurred the development of vocational evaluation for handicapped persons. The Medical Facilities Survey and Construction Act of 1954 authorized the construction of comprehensive rehabilitation facilities and stipulated that facilities constructed under the act must include vocational evaluation services. The Rehabilitation Amendments of 1954, provided financial assistance for the renovation and remodeling of rehabilitation facilities and monies for innovative programs many of which included vocational evaluation services. Through this act and later acts, vocational evaluators were trained; and research was initiated to improve vocational evaluation services (p. 6).

More recent legislation, particularly the Rehabilitation Act of 1973, has stimulated the development of comprehensive vocational evaluation centers for the severely handicapped, as well as the development of graduate level training programs for vocational evaluators and research and training centers studying the practice of vocational evaluation.

In a similar manner, legislative mandates in education including The Education of All Handicapped Children Act (PL 94-142) and The Vocational Education Amendments of 1976 (PL 94-482) have indirectly stimulated the growth of vocational evaluation services in school settings. This is largely a result of a growing shift toward vocational preparation and training of handicapped students in addition to their academic preparation. Estes (1980) concluded that there is a continuing need to:

. . . move away from the emphasis on remedial academic instruction and begin to implement programs designed to develop the functional competencies necessary for everyday living and gainful employment (p. 30).

Some states, such as Texas, have gone so far as to include vocational assessment services as important and integral components of their vocational/special needs programs. Many other states have developed specialized vocational assessment programs for their students. Noll (1978) identified over 100 programs serving vocational education students with special needs in school settings, nationwide.

*Vocational Evaluation and Assessment in School Settings*





## IV.

### ***TOOLS OF VOCATIONAL EVALUATION***

The tools of vocational evaluation remain relatively constant regardless of the settings in which services are provided. Differences are largely a matter of emphasis rather than complete absence of one or more tools. In this section, the tools of vocational evaluation are defined and their applications described.

#### ***DEFINITIONS***

The Vocational Evaluation and Work Adjustment Association (1975) broadly defined the tools of vocational evaluation as including "... all means and media with which the evaluator and the client carry out vocational evaluation" (p. 51). Within this context, the tools of vocational evaluation may be categorized as:

#### **I. SITUATIONS AS TOOLS**

- A. On-the-Job Evaluation**
- B. Work Samples**
- C. Psychometrics**

#### **II. RESOURCE TOOLS**

- A. Occupational Information**
- B. Referral Information**

### **III. APPLIED TOOLS**

- A. Interviewing Procedures**
- B. Observational Procedures**
- C. Reporting Procedures**
- D. Job Analysis**
- E. Learning Assessment**

### **SITUATIONS AS TOOLS**

Situations as tools broadly refers to the many different types of activities in which a student/client may be placed so that vocational potential may be assessed under a wide variety of circumstances. The Vocational Evaluation and Work Adjustment Association (1975) described three basic classes of situations:

- 1. On-the-job Evaluation**
- 2. Work Samples**
- 3. Psychometrics**

1) *On-the-Job Evaluation* provides one of the most realistic, work-oriented methods for assessing individual performance. In this situation, the student is placed on an actual job in the community, or in many cases, in the school setting itself. On-the-job evaluation sites reflect the development of an effective partnership between community businesses or public agencies and the vocational evaluation program. By placing the student in a realistic, work-oriented environment, it adds meaningfulness and face validity to the work emphasis of the vocational evaluation process. In so doing, it increases the likelihood that the student will see the close relationship between career development and the assessment process. The Vocational Evaluation and Work Adjustment Association (1975) described four basic kinds of situations in which on-the-job evaluations typically occur. Although based in large part on a rehabilitation model, they still are applicable to many school-based programs.

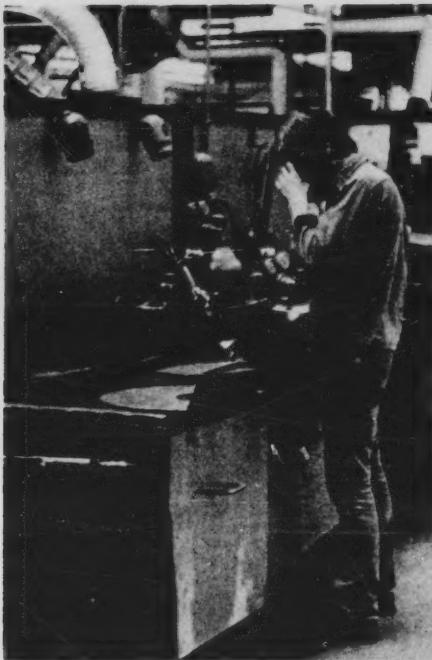
- **Job Site Situation**
- **Production Work Situation**

- Trial Training Evaluation
- Simulated Job Station.

*Job Site Situations* have six important characteristics as defined by the Vocational Evaluation and Work Adjustment Association (1975):

- The client [student] is not necessarily paid
- Placement on the job is primarily for the client's [student's] benefit
- The placement will not necessarily result in employment in that job
- The employer may not experience any immediate gain
- The client [student] does not displace another worker or fill a vacant worker slot
- The client's [student's] performance is supervised and evaluated by the employer or evaluation staff (pp. 52-53).

Job site evaluation will in most cases mean the placement of students/clients in jobs outside the school or rehabilitation setting. However, they may also be placed on actual competitive job sites within the school or rehabilitation setting. In each case, the student/client is engaged in real work activities and is often under the direct supervision of the employer, although the evaluation staff will also be closely involved. In most cases, the job site placement is temporary with both the employer and the student/client recognizing that its primary purpose is to facilitate the assessment process.



The *Production Work Situation* is the second major type of on-the-job evaluation method. It is most commonly utilized by rehabilitation-oriented vocational evaluation programs housed within sheltered workshops. In some cases, however, where school systems have developed their own sheltered workshop or work activity programs, evaluatees may be placed on sheltered work situations which closely parallel the same activities found in private, nonprofit rehabilitation-oriented programs. The three important characteristics of the production work situations are:

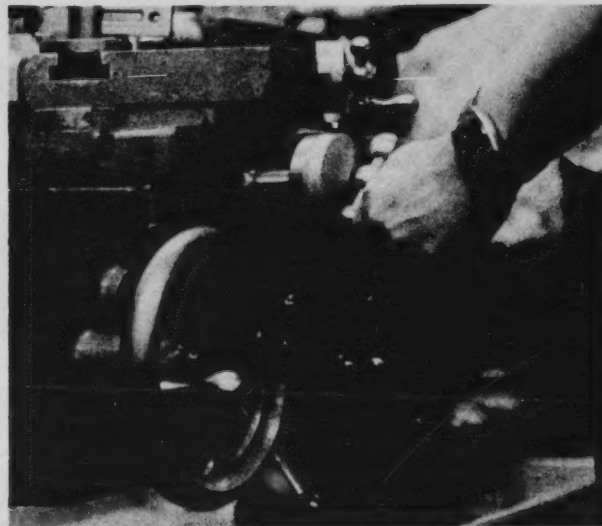
- The client/student is placed on tasks where wages are paid when finished, saleable products are produced

- The client/student works in a production-oriented, manufacturing or service environment where performance standards with regard to quality, quantity, etc., have been clearly established.
- The production situation can be varied by the evaluation staff, in conjunction with the production staff, to observe the client's/student's reactions to such changes.

Although the production work situation can be a highly useful assessment technique, it has two important limitations which often make it impractical for both school-based and rehabilitation-oriented programs. First, it is dependent on the production program having an adequate supply and diversity of contract work available on an ongoing basis so that careful planning and analysis can precede the placement of the client/student on any production work. Each job station should be carefully analyzed so that the evaluator is fully aware of the particular behaviors and job skills likely to be reflected by a given production task. Failure to do this can lead to the use of production work situations that provide little more than a basis for random, unreliable observations of evaluatee performances. With many workshops and work activity centers confronted by a chronic shortage of organized production work, the production work situation is often difficult to develop. Secondly, those programs that do have successful production programs are often under pressure to maintain exacting production schedules and ensure adequate quality control safeguards. Placing an untrained, inexperienced evaluatee in such a situation can result in a significant disruption to the production operation.

*Trial Training Evaluation* is the third major on-the-job evaluation technique. According to the Vocational Evaluation and Work Adjustment Association (1975) trial training evaluations have the following five characteristics:

- The client [student] is not paid
- There is an establishment training program
- Placement is made primarily for the benefit of the client [student]
- Supervision and evaluation are done by training staff
- It does not necessarily result in entry by the client [student] into that training program (pp. 53-54).





Trial training evaluation may take place in the school setting of the evaluation program, in rehabilitation facilities, or within training programs in the community. A good example of a school-based trial training situation is the placement of the evaluatee in a vocational education class or other classroom situation such as an independent living class. In such cases, students are assessed not only for immediate capabilities and limitations, but also for their potential to learn and benefit from further training. For school-based vocational evaluation programs, trial training fits well within a developmental philosophy which presupposes training for the student in one or more areas following evaluation services. For rehabilitation-oriented programs, trial training is a useful method for assessing a client's potential to enter and successfully complete a specific vocational/technical or job training program, as well as their ability to benefit from other rehabilitation services including independent living instruction, personnel adjustment training, etc.

*Simulated Job Stations* represent the fourth major type of on-the-job evaluation method. The Vocational Evaluation and Work Adjustment Association (1975) described four fundamental characteristics of this evaluation technique:

- They replicate all aspects of a job or a work process as realistically as possible
- They do not necessarily require payment to the client [student]
- They are controlled by the evaluator
- They are located within the evaluation facility (p. 54).



Simulated job stations have been widely used in business and industry as "in-basket" techniques for assessing managerial and professional personnel. They have also been used in the military where "flight trainers" and other highly technical job stations are replicated almost in their entirety. To a much lesser extent, they have been utilized within vocational evaluation programs. The Vocational Evaluation and Work Adjustment Association (1975) pointed out:

The key elements of the simulation include not only all the job tasks, but also important environmental, physical, and social characteristics of the job (p. 54).

As an evaluation technique, simulated job stations have a number of advantages. First, because they incorporate all of the job tasks and important related conditions, they offer a great deal of face validity, without being subject to the whims of employers who may be unable or unwilling to maintain job site situations. Secondly, because they are simulations of jobs, they can

be maintained on an ongoing basis much more easily than many production work or trial training evaluation sites which may be lost once a production contract operation is completed or a training program discontinued. Third, they can be more easily managed by the evaluator than other on-the-job evaluation techniques because they generally take place within the evaluation facility. Unfortunately, however, simulated job stations can be very costly to research, analyze and develop because they do, by their nature, replicate a job almost in its entirety. For example, simulating an assembly line operation from a local industry would be very difficult both in terms of replicating the equipment used and the working conditions; although once developed, it could provide an excellent means for assessing a specific work activity. Because of the cost and time involved in developing simulated job stations, vocational evaluation, in its early development as a profession, shifted its attention to a closely related evaluation technique which overcame these obstacles and still provided students/clients with simulated work activities. This new assessment tool, the work sample, differed from simulated job stations in that the latter incorporates all of the significant physical, environmental, social and job-related characteristics of a potential job while work samples tend to focus on an individual job or cluster of jobs, replicating their conditions to a much lesser extent than simulated job stations. As a result, although both a work sample and a simulated job station might indicate that a student/client has a particular job skill, the more comprehensive simulated job station might also indicate that the evaluatee is unable to cope with the accompanying environmental conditions e.g. dirt, heat, noise, etc.

2) *Work Samples* are the second major situational tool. They are defined by the VEWA-CARF Vocational Evaluation and Work Adjustment Standards with Interpretive Guidelines and VEWA Glossary (1978) as:

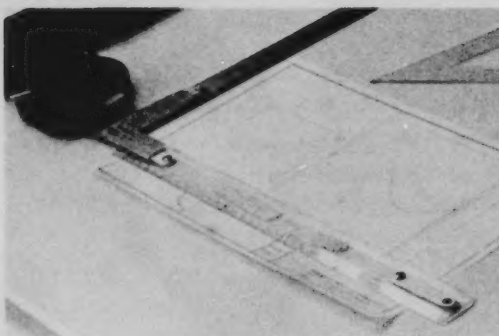
A well defined work activity involving tasks, materials, and tools which are identical or similar to those in an actual job or cluster of jobs. It is used to assess an individual's vocational aptitude, worker characteristics and vocational interest (p. 20).

Work samples combine some of the characteristics of simulated job stations as well as those of their more traditional counterpart, psychometric tests. Today, many commercial work samples provide normative data as well as information on validity and reliability. And because they generally are comprised of work activities, they are still closely related to simulated job stations. Work samples may attempt to simulate the complete range of activities for a single job or they may provide selected activities designed to represent a number of related jobs. The VEWA-CARF Vocational Evaluation and Work Adjustment Association Standards with Interpretive Guidelines and VEWA Glossary (1978) provides definitions of five different kinds of work samples:

*Cluster Trait Work Sample*—A single work sample developed to assess a group of worker traits. Contains a number of traits inherent in a job or variety of jobs. Based upon an analysis of an occupational grouping and the traits necessary for successful performance therein, it is intended to assess the client's potential to perform various jobs.

*Indigenous Work Samples*—Represent the essential factors of an occupation as it presently exists in one community.

*Job Sample*—Those work samples that in their entirety are replicated directly from industry and include the equipment, tools, raw materials, exact procedures and work standards of the job.



*Simulated Work Sample*—Work samples which attempt to replicate a segment of the essential work related factors and tools of a job as it is performed in industry.

*Single Trait Work Sample*—Assess a single worker trait or characteristic. It may have relevance to a specific job or many jobs, but it is intended to assess a single isolated factor (p. 20).

Work samples are particularly useful vocational evaluation tools in that used properly, they allow the evaluators to assess important work-related characteristics of the student/client outside an actual work setting. Work samples, supplemented by on-the-job evaluation techniques, provide a highly effective means of assessing student capabilities.

Brolin (1973) cited eight advantages of using commercial work sample systems:

1. Work samples provide job exploration. Given actual simulations of work activities, students often begin to think seriously about the type of work they might like to do.
2. Work samples allow actual job simulations to be brought into the classroom setting, where they can be tried out without excess pressure.
3. Work samples are motivating to students. Not only do they provide a break from academic activities, they often provide manipulative tasks at which handicapped students can be successful.
4. Work samples can provide motivation for classroom learning by establishing relevance for certain academic skills.
5. Work samples allow habilitation personnel to compare student abilities to those of workers employed in particular occupations.
6. Work samples may be used as behavioral change instruments, allowing assessment and training of work habits and personal social skills.



7. Work samples allow determination of student strengths and weaknesses on work-related tasks while the student is still in the program where remediation can take place.
8. Work samples can build confidence by providing successful experiences to students who have experienced failure in school (p. 81).

Yet, work samples, particularly when used by themselves, suffer from several significant limitations which were described by Sax (1973).

Some of the disadvantages for the work samples method include: (a) Work samples tend to emphasize quality and quantity of production rather than personality factors, (b) developing work samples for the many different types of jobs in the labor market is unfeasible, (c) workers are part of a working social family—and the social experience, reactions from co-workers, heat, noise, motivation, and wages vary so considerably in our shops that there is little comparison between the environment in industry and the work sample method, (d) we're really not measuring the actual job, (e) because work technology change is so rapid, we run the risk of developing a good appraisal instrument for jobs which no longer exist, and (f) work samples have not often used statistical methods to develop reliability and validity information (p. 32).

Despite these disadvantages, work samples continue to play an important role in vocational evaluation programs in both school and rehabilitation settings. Many programs use a combination of commercial work sample systems and locally develop work samples based on analyses of the local labor market. In either case, care must be taken to ensure that the work samples selected and developed are appropriate for the population that will be served. Carelessness in work sample selection can result in obtaining work samples that are unrealistic for the evaluatees given their capabilities and limitations, or largely unrelated to the available job market. Appendix A provides a basis for comparing many of the most commonly used vocational evaluation and work sample systems. Appendix B provides a checklist for evaluating individual work samples, whether developed locally or by commercial publishers. Together, they provide two useful resources for selecting new work samples or evaluating existing work samples. The following list provides the names and addresses of the publishers/manufacturers of many of the most widely-used commercial vocational evaluation systems. Interested readers may wish to obtain more information from them directly.



**CARRELS FOR HANDS-ON  
INDIVIDUALIZED CAREER  
EDUCATION (CHOICE)**  
Career Resource Corporation  
P.O. Box 151277  
Salt Lake City, UT 84115

**COMPREHENSIVE  
OCCUPATIONAL ASSESSMENT  
AND TRAINING SYSTEM  
(COATS)**  
Prep, Inc.  
1575 Parkway Avenue  
Trenton, NJ 08628

**McCARRON-DIAL WORK  
EVALUTION SYSTEM**  
McCarron-Dial Systems  
P.O. Box 45628  
Dallas, TX 75245

**MICRO-TOWER**  
ICD Rehabilitation and Research  
Center  
340 East 24th Street  
New York, NY 10010

**PHILADELPHIA JEWISH  
EMPLOYMENT SERVICE WORK  
SAMPLE SYSTEM (JEVS)**  
Vocational Research Institute  
Jewish Employment and Vocational  
Service  
1700 Sansom Street, 9th Floor  
Philadelphia, PA 19103

**PHOENIX ABILITY SURVEY  
SYSTEM**  
Human Services Data Center, Inc.  
2 N. Riverside Plaza, Suite 1941  
Chicago, IL 60606

**PRE-VOCATIONAL READINESS  
BATTERY (VALPAR 17)**  
Valpar Corporation  
3801 E. 34th Street, Suite 105  
Tucson, AZ 85713

**SINGER VOCATIONAL  
EVALUATION SYSTEM**  
Singer Educational Division  
Career Systems  
80 Commerce Drive  
Rochester, NY 14623

**TALENT ASSESSMENT  
PROGRAMS (TAP)**  
Talent Assessment, Inc.  
P.O. Box 5087  
Jacksonville, FL 32207

**TOWER SYSTEM (TOWER)**  
ICD Rehabilitation and Research  
Center  
340 East 24th Street  
New York, NY 10010

**VALPAR COMPONENT WORK  
SAMPLE SERIES (VALPAR)**  
Valpar Corporation  
3801 East 34th Street  
Tucson, AZ 85713

**VOCATIONAL INFORMATION AND  
EVALUATION WORK SAMPLES  
(VIEWS)**  
Vocational Research Institute  
Jewish Employment and Vocational  
Service  
1700 Sansom Street, 9th Floor  
Philadelphia, PA 19103

**VOCATIONAL INTEREST  
TEMPERAMENT AND APTITUDE  
SYSTEM (VITAS)**  
Vocational Research Institute  
Jewish Employment and Vocational  
Service  
1700 Sansom Street, 9th Floor  
Philadelphia, PA 19103

**VOCATIONAL SKILLS  
ASSESSMENT AND  
DEVELOPMENT PROGRAM  
(BRODHEAD-GARRETT)  
Brodhead-Garret Company  
4560 East 71st Street  
Cleveland, OH 44105**

**WIDE RANGE EMPLOYABILITY  
SAMPLE TEST (WREST)  
Jastak Associates, Inc.  
1526 Gilpin Avenue  
Wilmington, DE 19806**

It should always be remembered that locally developed work samples can also provide an excellent means of assessment because they will often be more closely tied to the demands and limitations of the local labor market than commercially developed work sample systems.

Sitlington and Wimmer (1978) described a basic four step approach to work sample development.

1. Conduct community job survey. This step involves investigating the types of jobs available in the community for the specific population being served.
2. Decide on samples to develop. Work samples should be developed when other appropriate instruments or techniques are not available to assess the necessary skills. The staff member should choose work activities that fit the work sample manual format and that can be developed within the program's time and budget. Work samples that would be quickly outdated or difficult to reconstruct after administration should be avoided.
3. Conduct job analysis. A careful and specific job analysis is vital to work sample construction if the sample is to represent all or part of a specific job. The validity of the work sample depends on a match between skills required by the job and those required by the sample.
4. Design and construct the work sample. Select the tasks to be represented in the work sample. Since it is sometimes not possible to represent a job in totality, select those skills that are necessary to job performance. Consider limitations on administration time and reconstruction of the sample. If it is possible without disturbing the inherent task sequence, arrange tasks from simple to complex to allow for termination without failure. Performance on the sample should be measured by number of correct products, number of errors, quality of work, or time required for completion, whichever is most appropriate for the particular task (p. 83).

To this four step approach, a fifth step, field testing, may be added. This will often involve collecting test data related to norms, reliability, validity and other matters of concern. Individuals interested in developing locally-based work samples are encouraged to refer to the publication *Work Sample Manual Format* available from the Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751. In addition,

tion, it should be noted that the Commission on Accreditation of Rehabilitation Facilities (1982) has established four basic standards for work samples:

- (1) They should be representative of realistic competitive worker traits/skills.
- (2) Work samples should be established by an analysis of job tasks or traits related to a specific area of work, and should be standardized as to materials, layout, instructions, and scoring.
- (3) Competitive norms or industrial standards should be established and used.
- (4) Each work sample should have an examiner's manual which specifies:
  - (a) Its relationship to the Dictionary of Occupational Divisions, Worker Trait Groups, or an appropriate job analysis system;
  - (b) Prerequisites, e.g., any specific task requirements which might make administration unfeasible for a given individual;
  - (c) The work sample purpose, e.g., specifically what is the sample attempting to assess;
  - (d) The materials and equipment used;
  - (e) Preparations for testing and the layout of materials;
  - (f) Instructions to the individual;
  - (g) Instructions for timing, evaluating errors, and scoring, if applicable; and
  - (h) Instruction for interpreting scores (p. 45).

3) *Psychometric Tests* represent the third major "situational tool." Used in conjunction with the more work-oriented, on-the-job evaluation and work sample assessment techniques, psychometric tests fulfill a useful role in vocational evaluation services. They are particularly useful in assessing specific vocational aptitudes, intellectual and psychomotor capabilities, and personality characteristics of the evaluatee. Most of these tests will be administered by the vocational evaluator, however, in some cases, they will be administered by staff psychologists or other members of the evaluation team including counseling and guidance personnel. In some cases, the use of specific tests like the Minnesota Multiphasic Personality Inventory (MMPI) may be limited to approved psychologists and others meeting American Psychological Association (APA) guidelines. A list of several tests commonly used in vocational evaluation programs is listed below. Interested readers should refer to the publication *Psychological Testing in Vocational Evaluation*, available from the Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751.

## ***ACHIEVEMENT AND READING TESTS***

- Wide Range Achievement Test
- P.T.I. Numerical Test (Personal Test for Industries)
- Adult Basic Learning Exam
- Peabody Individual Achievement Test
- Tests of Adult Basic Education
- Nelson Reading Test
- Gray Oral Reading Test
- Slosson Oral Reading Test
- SRA Reading and Arithmetic Indices
- Key Math Test
- California Achievement Tests

## ***INTEREST INVENTORIES***

- California Picture Interest Inventory
- AAMD-Becker Reading-Free Vocational Interest Inventory
- Minnesota Importance Questionnaire
- Brainard Occupational Preference Inventory
- Gordon Occupational Check List
- Geist Picture Interest Inventory
- Program for Assessing Youth Employability Skills
- Ohio Vocational Interest Survey
- Strong-Campbell Interest Inventory
- Wide Range Interest-Opinion Test
- California Occupational Preference System
- Kuder Occupational Interest Survey
- Minnesota Vocational Interest Inventory
- Vocational Planning Inventory

## ***INTELLIGENCE***

- Culture Fair Intelligence Test



- Wechsler Adult Intelligence Scale
- Raven Progressive Matrices
- Revised Beta Examination
- Peabody Picture Vocabulary Test
- SRA Pictorial Reasoning Test
- SRA Verbal Form

## ***APTITUDE AND DEXTERITY TESTS***

- General Aptitude Test Battery
- Differential Aptitude Test
- USES General Aptitude Test Battery
- USES Non-Reading Aptitude Test Battery
- Minnesota Spatial Relations Tests
- Bennett Hand-tool Dexterity Test
- Purdue Pegboard
- Stromberg Dexterity Test
- Minnesota Rate of Manipulation Test
- Pennsylvania Bi-Manual Work Sample Test
- Bennet Mechanical Comprehension Test
- Revised Minnesota Paper Form Board Test
- SRA Mechanical Aptitudes
- Crawford Small Parts Dexterity Test
- SRA Typing Skills
- Minnesota Clerical Test
- General Clerical Test
- Stenographic Aptitude Test

## ***PERSONALITY TESTS***

- Sixteen Personality Factor Questionnaire
- Career Maturity Inventory
- Edwards Personality Inventory
- Minnesota Multiphasic Personality Inventory

- Work Environment Preference Schedule

## **MISCELLANEOUS**

- Social and Prevocational Information Battery
- Wells Concrete Oral Directions Test

## **TEST PUBLISHERS**

**American Association on Mental  
Deficiency**  
5201 Connecticut Avenue, N.W.  
Washington, DC 20015

**American Guidance Service, Inc.**  
Publisher's Building  
Circle Pines, MN 55014

**Bobbs-Merrill Company**  
4300 West 62nd Street  
Indianapolis, IN 45268

**CTB/McGraw-Hill**  
Del Monte Research Park  
Monterey, CA 93940

**Educational and Industrial Testing  
Service**  
P.O. Box 7234  
San Diego, CA 92107

**Guidance Associates of Delaware, Inc.**  
1526 Gilpin Avenue  
Wilmington, DE 19806

**Houghton Mifflin Co.**  
110 Tremont Street  
Boston, MA 02107

**Program of Vocational Education  
Educational Testing Service**  
Princeton, NJ 08540

**Scholastic Testing Service**  
480 Meyer Road  
Bensenville, IL 60106

**Science Research Associates, Inc.**  
259 East Erie  
Chicago, IL 60611

**The Psychological Corporation**  
757 Third Avenue  
New York, NY 10017

**Vocational Psychology Research  
Elliott Hall**  
University of Minnesota  
Minneapolis, MN 55455

**Western Psychological Services**  
12031 Wilshire Blvd.  
Los Angeles, CA 90005

Readers interested in obtaining more information regarding any of the previously mentioned tests or others, are encouraged to contact individual test publishers and request their catalogs.

## RESOURCE TOOLS

Resource tools are the second major category of vocational evaluation tools. They may be thought of as important, organized information resources which the vocational evaluation staff and the student draw on in order to not only better assess student capabilities and interests, but also help establish viable goals. Two major types of resource tools may be distinguished.

1. Occupational Information
2. Referral Information

1) *Occupational Information* is a resource tool vocational evaluators often find useful in helping students identify job areas and specific jobs in which they are interested. Since many students have little or no knowledge of the world of work, and often limited job experience, occupational information can play an important role in helping them identify career interests. It is particularly useful during the planning stage of evaluation since it provides the student with an opportunity to tentatively identify prospective job interests. Once this is done, the evaluator and the student can then develop an evaluation plan utilizing tools and techniques which will specifically address these new areas of interest.

A wealth of occupational information resources and career education materials are available from commercial publishers. It is not the purpose of this section to discuss the pros and cons of any of these systems. Suffice it to say that the selection of any system should be based on the needs, capabilities, and general interests of the student population typically served by the evaluation program. For example, some occupational information systems require relatively strong reading skills on the part of the student, and such systems would obviously be inappropriate for use in vocational evaluation centers where the vast majority of students have marginal reading skills. In such cases, a media-based program of occupational information might be more appropriate. Secondly, as much as possible, the system utilized should reflect job opportunities that are realistically available to student evaluatees given their handicapping conditions and the structure of the available labor market. A system primarily comprised of occupational information on jobs most typically found in large urban areas, or jobs requiring advanced educational preparation, would in many cases have limited utility for rural programs or those primarily serving students with significant educational deficits.

Since most schools already possess career information materials, the evaluation staff should verify the appropriateness and availability of these materials for their students. If they are not satisfactory, a number of bibliographies on career information exist. These bibliographies can help identify potentially useful materials. A particularly useful resource for identifying materials is:

National Center for Research in Vocational Education  
Ohio State University  
1960 Kenny Road  
Columbus, OH 43210

2) *Referral Information* concerning the student's educational, medical, social and personal background is the second major resource tool available to the vocational evaluator. Detailed, timely referral information is essential to effective individual evaluation planning, since data on the student's reading skills, vocational interests, hearing, vision and related medical background will in many ways guide the initial selection of evaluation tools and techniques. Failure to obtain adequate referral information can result in planning psychometric tests and situational activities that may be inappropriate for the student given his or her interests and background. It is of particular concern where medical limitations and mobility problems are involved. Failure to identify these areas of concern during the early steps of planning can necessitate a complete revision of the plan which in turn may adversely affect scheduling. In addition, the referral information is important because it will provide the evaluator with concrete information about the purpose of the evaluation. As a result of obtaining the referral information, the evaluator should know why the student was referred, what specific questions are to be addressed during the evaluation, and in many cases, after reviewing the referral information, the evaluator will develop additional questions which will be addressed in the course of the evaluation. Thus, referral information is an invaluable asset in the evaluation planning process. Perhaps the major disadvantage of referral information as a resource tool is that it may bias untrained evaluators with regard to students' academic and vocational skills, as well as their behavioral skills. It should be recognized, however, that referral information should not be used as a basis for making suppositions about student capabilities. This is particularly true with regard to behavioral observations about the student. Many times these behavioral observations are based on classroom activities. Evaluators that assume the same types of maladaptive behaviors will occur in the vocational evaluation center may be creating a self-fulfilling prophecy which is counterproductive for the student. In many cases, because the vocational evaluation center provides the student with a new, work-oriented environment, some of the behavioral problems manifested in the classroom will not occur in the evaluation setting. As a result, it is important that evaluators maintain their objectivity when utilizing referral information as a resource tool.

## APPLIED TOOLS

The Vocational Evaluation and Work Adjustment Association (1975) described applied tools as "... activities in which the evaluator engages directly during the evaluation process" (p. 61). Five basic applied tools can be identified:

1. Interviewing
2. Observing
3. Reporting
4. Job Analysis
5. Learning Assessment

1) *Interviewing* is certainly one of the most fundamental applied tools of the vocational evaluator. Used within the context of vocational evaluation, interviewing focuses on gathering and defining relevant vocational information. It is a useful tool for filling in important gaps in the referral information as well as offering the student an



opportunity to verify or clarify important information which will shape the evaluation plan. In many cases, parents will also be interviewed along with the student and as the evaluation progresses, interviewing methods will expand and become more counseling-oriented. The interview/counseling relationship is an important one because ongoing communication and feedback between the student and the evaluation team is an essential component of an effective evaluation program. To some extent, this interviewing/counseling activity combined with the more traditional test administration procedures, help make vocational evaluation a unique, evaluatee-centered approach to individual assessment. Emphasis is placed on providing evaluatees with information on their performance during the assessment process rather than after testing has been completed. This contributes to a dynamic process that can only be effective when the evaluator has highly-developed interviewing/counseling skills and is an effective communicator not only with staff, but also with students and in many cases their parents.

2) *Observational Procedures* in vocational evaluation generally focus on identifying the student's relevant vocational behavior. The ability to make accurate, timely behavior observations as well as interpret these observations is one of the most important responsibilities of the vocational evaluator. Inappropriate job-related behavior or inadequate knowledge of what constitutes acceptable job behavior may, in many cases represent more significant limitations to employment than lack of specific job skills. Thus, the



evaluator must be able to make these observations over extended periods of time so that an integrated picture of the student's vocational behavior will emerge.

Referral questions often are more concerned with behavioral issues rather than job skill deficits. "Can she work without close supervision? Does he disrupt other workers' performance? Is he antagonistic towards supervisors? Is her punctuality acceptable on job-related activities? Does she maintain adequate grooming and hygiene habits?" These are all important questions that typically occur during the evaluation process and they are all certainly critical to the evaluation process. In many cases, teachers, administrators and counseling and guidance personnel will have already made similar observations but these will have primarily been based on performance in the classroom or on the basis of a short-term psychological evaluation. The vocational evaluator's responsibility is to be able to address these same issues in structured situational activities occurring in a different setting and often over an extended period of time which may last several days or even weeks. It is imperative, then, that the evaluation staff be prepared to make their observations in as timely, accurate, and as objective a manner as possible. It is also important that the evaluation staff have an accurate understanding of the actual demands of the working environment or job tasks for which the student is being evaluated. Many different behavior observation and reporting tools are available for quantifying these observations and increasing the objectivity and reliability of the raters. The following list describes a number of useful, vocationally-oriented behavior rating scales:

**AAMD ADAPTIVE BEHAVIOR  
SCALES**

American Association on Mental  
Deficiency  
5201 Connecticut Avenue, N.W.  
Washington, DC 20015

**SAN FRANCISCO VOCATIONAL  
COMPETENCY SCALE**

The Psychological Corporation  
304 East 45th Street  
New York, NY 10017

**ADAPTIVE BEHAVIOR CHECKLIST**

Western Psychological Services  
12031 Wilshire Blvd.  
Los Angeles, CA 90005

**VOCATIONAL BEHAVIOR  
CHECKLIST**

Publications Department  
Research and Training Center  
1223 Myers Avenue  
Dunbar, WV 25064

**MDC BEHAVIOR IDENTIFICATION  
FORMAT**

Materials Development Center  
University of Wisconsin-Stout  
Menomonie, WI 54751

3) *Reporting Procedures* are the methods by which the evaluator organizes, analyzes and disseminates the results of the evaluation. The previously mentioned behavior rating scales represent one type of reporting resource tool of use to the vocational evaluation staff. In many cases, a standardized format will be in place for the final written report which will describe the overall results of the evaluation. Additional systematic reporting procedures covering the entire evaluation process from referral, through interviewing, planning, testing, etc., provide a well-organized means for tracking the progress

of the evaluation. As such, the resulting reporting procedures used serve as a valuable resource for evaluating progress during the actual evaluation, as well as weeks and months later when that same information will be used for follow-up and further planning with the student. Organized, systematic reporting procedures, based on specific referral questions and student-centered needs, are an important characteristic of a successful evaluation program.

4) *Job Analysis* is defined by the VEWA-CARF Vocational Evaluation and Work Adjustment Standards with Interpretive Guidelines and VEWA Glossary (1978) as:

. . . The systematic study of an occupation in terms of what the worker does in relation to data, people and things; the methodology and techniques employed, the machines, tools, equipment and work aids used; the materials, products, subject matter or services which result, and the traits required of the worker (p. 13).

Job analysis, as an applied vocational evaluation tool, is frequently used in rehabilitation-oriented evaluation programs when developing on-the-job evaluation sites or work samples. In some instances, it is very useful as a means for identifying and recording essential job tasks as well as related job qualifications such as general educational development, specific aptitudes, environmental concerns, etc. Job analysis has long been utilized within industry as a means for personnel classification. Its use within vocational evaluation has been directed, by in large, by the methods and procedures developed by the U.S. Department of Labor. As in the case of rehabilitation-oriented programs, vocational evaluation personnel in school settings will find it to be a very useful technique for gathering concrete data about prospective on-the-job evaluation or work study sites and as an important source of occupational information for students. Readers interested in learning more about how to actually conduct job analyses are referred to the following publication:

HANDBOOK FOR ANALYZING JOBS  
U.S. Department of Labor  
Manpower and Training Administration

The preceding publication is available from two primary sources:

MATERIALS DEVELOPMENT CENTER  
University of Wisconsin-Stout  
Menomonie, WI 54751

SUPERINTENDENT OF DOCUMENTS  
U.S. Government Printing Office  
Washington, DC 20402

5) *Learning Assessment* is one of the most recently developed applied tools of vocational evaluation and is perhaps most closely identified with school-based programs. It focuses on utilizing vocational evaluation services as a basis for identifying student learning preferences under work-oriented conditions. Rather than attempting to measure a student's IQ or "capacity to learn," learning assessment concentrates on identifying "how" a student can best learn different work tasks. This shift in emphasis from more traditional assessment procedures is particularly applicable to school-based evaluation programs since further vocational and academic training usually make up a major part of

the evaluation recommendations. Learning assessment provides a basis for making specific recommendations with regard to ways in which instructional strategies and the learning environment can be adapted so as to facilitate the student's success in training.

Dunn and Dunn (1978) have identified four broad areas that have a significant impact on individual learner preferences. These four areas include:

- Environmental Stimuli—(sound, light, heat, etc.)
- Emotional Stimuli—(persistence, motivation, structure, etc.)
- Sociological Stimuli—(responses to people, group work vs. individual, etc.)
- Physical Stimuli—(perceptual factors, mobility, etc.)

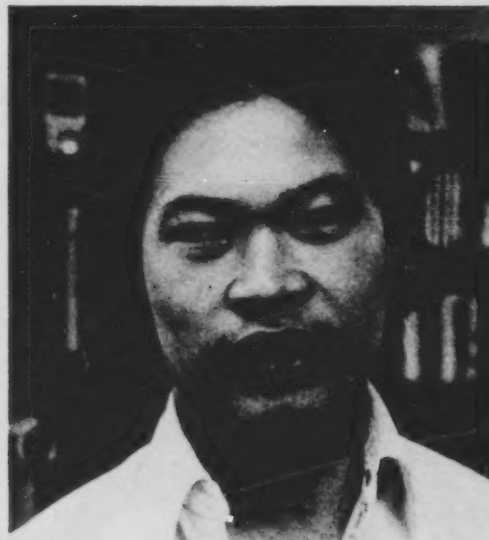
Individual preferences within and across these four categories combine to make up the student's individual learning style or preference. Gregorac (1980) has described four primary kinds of learning styles.

- Concrete-Sequential Learners (prefer orderly, structured, first-hand, step-by-step instructions. This group may be easily distracted).
- Concrete-Random Learners (prefer first-hand experiences but not necessarily highly-organized instruction. This group prefers exploratory, experiential learning).
- Abstract-Sequential Learners (prefer symbolic learning where instructions are provided in an orderly fashion through use of symbols. This group has a low distraction tolerance.)
- Abstract-Random Learners (prefer a symbolic instructional approach more global in nature and less structured. Learning may be impeded if a step by step approach is utilized).

Learning assessment holds great potential as an applied vocational evaluation tool in school settings. The information gained from learning assessment can prove to be invaluable as an aid to the IEP process and instructional modification and adaptation.



*Vocational Evaluation and Assessment in School Settings*



## ***THE VOCATIONAL EVALUATION PROCESS IN THE COMPREHENSIVE VOCATIONAL EVALUATION CENTER***

Section II pointed out that six different types of vocational assessment models can be distinguished in school settings. These models include the following:

- 1) Assessment in the special education classroom
- 2) Assessment in occupational exploration classes
- 3) Integrated vocational assessment
- 4) Vocational evaluation center
- 5) Contracted vocational assessment
- 6) Mobile vocational evaluation units.

The first three models are based on conducting vocational assessments primarily in a classroom setting. These classrooms may function as independent assessment centers as in the case of special education or occupational exploration classes. Or, a number of classes such as vocational education classes, work study assignments and others may be integrated so as to serve as a broader basis for vocational assessment than the independent classrooms alone can offer. The advantages of these classroom-based approaches is that they can often be implemented relatively easily with few additional staff needed. The primary disadvantages are that they do not provide a truly comprehensive approach to assessment. As a result, the data generated may be limited in scope. Secondly, because they are based in classroom settings for the most part, the work orientation of the process may be lost and the student may view the assessment process as another academic activity. Finally, in many cases, classroom personnel with limited training in vocational assessment may be substituted for trained vocational evaluation staff. Thus, the impact and overall potential benefits of the vocational evaluation are at risk in the sense that trained vocational assessment personnel are more likely to provide

more detailed insight into the student's vocational limitations and capabilities than classroom instructors.

The mobile vocational evaluation unit, while suffering many limitations in terms of physical space, scheduling, and diversity of evaluation tools, does offer a viable means for vocational assessment, particularly in rural areas or districts where many schools must be served. Rather than bringing students to one centralized vocational evaluation center, the mobile unit actually goes out to the students and functions for a few days within their own school settings. Appendix C provides a good description of one type of successful mobile, school-based vocational evaluation program.

Items four and five are most closely associated with the Comprehensive Vocational Evaluation Center (CVEC). These types of vocational evaluation programs whether established within a school setting or vocational rehabilitation setting, offer the student and school personnel the most diverse and sophisticated approach to vocational evaluation services. Staffed by trained vocational evaluation personnel, it utilizes a wide variety of tools and techniques and is capable of providing assessment services to a heterogeneous population of handicapped students and adults. It is physically separate from other activities within the school or rehabilitation facility; although, it is organized so as to take advantage of outside activities including work study opportunities, on-the-job evaluation sites, and vocational education activities that may add to the assessment process. The purpose of this section is to describe the vocational evaluation process as it typically exists within the Comprehensive Vocational Evaluation Center.

## ***COMPREHENSIVE VOCATIONAL EVALUATION CENTER (CVEC)***

Foster et al. (1977) suggest that there are two basic types of vocational assessment. The first is ongoing, continuing throughout the student's life. In this case, vocational evaluation takes on a developmental role. Periodic assessment provides a means for reevaluating student needs and progress as they work toward their long term vocational objectives. Since this is an ongoing activity, the assessment process may be less detailed, frequently taking place in the classroom, where the emphasis on flexibility and making use of existing physical facilities and classroom personnel are advantageous.

The CVEC is more closely allied to the second type of vocational assessment. In this case, vocational evaluation is viewed as a more formalized, comprehensive diagnostic process. Evaluation takes place in order to provide concrete answers to specific questions about the student. Students may spend a few days, or in some cases, weeks in the CVEC participating in a variety of work-oriented assessment activities. Specific recommendations, based on results and interpretations of the vocational evaluation data, will be offered by a team of professional vocational evaluation specialists. The vocational evaluation process as it exists in the CVEC basically follows an eight step approach.

- 1) Referral/Intake**
- 2) Orientation**
- 3) Initial Interview**

- 4) **Individual Evaluation Planning**
- 5) **Formal Testing/Feedback**
- 6) **Staffing**
- 7) **Final Report**
- 8) **Follow-up**

#### **REFERRAL/INTAKE**

Vocational evaluation services generally begin with a formal referral of the student to the vocational evaluation center. Referrals most often come from work experience coordinators, counselors, psychologists, social workers, speech therapists, vocational instructors, etc.; however, in some cases they may be the direct result of involvement from external sources including physicians, parents and vocational rehabilitation counselors. An organized, timely referral process clearly understood by all parties concerned is extremely important because it helps ensure that students will receive the services they need.

Many times, the referral process is initiated by a phone call from the prospective referral source to the intake coordinator at the vocational evaluation center. This "preliminary referral" is usually followed by a formal referral. The formal referral generally involves forwarding appropriate background information on the student, along with specific statements regarding the "reason for referral" to the intake coordinator. The latter information is particularly important since it indicates exactly what kind of information the referral source is seeking. The more specific the reason for referral is stated, the greater the likelihood that the student's vocational evaluation program will be able to develop concrete assessments and recommendations regarding the student's vocational needs and capabilities. Less specific referral questions will contribute to a broader approach to understanding general problem areas. The following groups of referral questions are indicative of the difference between "general" and "specific" referral questions.

##### *General Referral Questions*

- What kind of work can he do?
- Is she ready for work study placement?
- How does he get along with supervisors on the job?
- Is he too careless to work in a hazardous work environment?

##### *Specific Referral Questions*

- With proper training, could he work as a small engine mechanic?
- Are her punctuality and attendance habits adequate for job placement?



- Does he consistently follow all safety requirements when using power tools?
- On job assignments, how much time is spent "on-task" vs. "off-task."

In most cases, both general and specific referral questions will be asked. The important point to remember is that with any question asked, it should be as precise as possible since this will greatly increase the likelihood that specific answers will follow.

What other kinds of information are included in the initial referral? In many cases, the vocational evaluation staff like to have extensive background information with regard to the student's psychological, medical, educational, personal, and family background. This information can be extremely useful in helping the evaluation staff develop the evaluation plan and determine what assessment tools will be most effective. Certainly knowledge of a student's reading level is beneficial since it will obviously affect the selection of tasks and tests that require reading. In addition, background medical data will point out which work activities might be too strenuous for the student given his or her medical limitations. In all cases, it is the primary responsibility of the referral source to provide the vocational evaluation staff with information which is pertinent to the evaluation planning and delivery process. It should also be understood that not all vocational evaluation programs are appropriate for all referrals. Thus, a major goal of the referral process is to screen out those students that are not likely to benefit from vocational evaluation services. The reasons for being rejected are numerous. They may be based on inadequate physical facilities, severity of disability, assessment tools available or staff capabilities. For example, if a physically disabled student is being referred for the express purpose of determining his or her ability to enter and successfully complete an advanced electronics technician training program and the evaluation center has no valid means of assessing this capability because it is primarily geared toward assessing severely and moderately retarded students, this referral might be rejected. However, in such cases, it is the responsibility of the vocational evaluation staff to help identify other prospective means of providing the necessary services. In this example, a short-term work study experience either within the technical training program or with a local employer, might provide a viable alternative which the referral source can explore independently. In any case, well-documented, pertinent referral information, provided in a timely, organized manner, is essential to the referral process. Appendix D provides one example of an effective referral/intake tool.

## ORIENTATION

One of the most important steps in the vocational evaluation process is the initial preparation of the student for the services that will follow. Well-prepared students with a sound understanding of the purpose of vocational evaluation services and the types of activities that are likely to take place, often feel less threatened and uncertain about impending events. This can help ensure that the vocational evaluation is a positive experience and it also increases the likelihood that the students' performance will be characteristic of their true capabilities.

Orientation often occurs at two times. The referral source provides the student with background information on vocational assessment—what's involved, how it can

benefit the individual student, etc. This is often followed by a scheduled tour of the vocational evaluation center so that the student has some first-hand contact with the program prior to initiating a formal referral. At this point, based on student interest and willingness to participate, the referral agent and student decide whether to seek actual placement in the program. If this is done, formal referral takes place. The second orientation the student receives is at the vocational evaluation center during the first few hours of assessment. At this point, several vocational evaluation staff members or the individual student's vocational evaluator will provide more detailed information of what will take place during the student's own individualized vocational evaluation program. The student has the opportunity to ask very specific questions about what will be occurring, why, when, etc.? The New Jersey Department of Education (1978) has outlined an orientation procedure and described some of the most important reasons for providing students with an orientation to vocational evaluation services.

For many students vocational assessment will be their first exposure to a shop environment. A good portion of students selected for vocational assessment have been disillusioned with their previous educational experience because they were marked with failures. The fact is that in some cases, students are selected for vocational assessment as a last resort prior to placement in a residential setting. It is obvious that the student selected for vocational assessment does not need to be further frustrated. Therefore, it is essential that the student be carefully prepared for this experience. She/he should be aware of:

1. Why she/he is being evaluated.
2. In what types of activities she/he will be involved.
3. What is expected of him/her.
4. What these experiences may lead to.

It is very important to develop a sequential plan in order to inform students, parents, and the referring school officials of the vocational assessment process. The following is a plan which can be utilized:

1. Student meets with guidance counselor or Child Study Team member. Vocational assessment is explained to the student.
2. Guidance counselor notifies parents and informs them of the possible placement of their child in vocational assessment.
3. Guidance counselor contacts school official responsible for vocational assessment and sets appointment for visitation by him/her, parents, and student. It would be practical, when possible, to schedule groups of students, parents, and counselors.
4. During the visitation, the vocational assessment official may:
  - a. Conduct interviews.
  - b. Introduce group to the evaluators.
  - c. Guide a tour of the facilities.
  - d. Give a detailed orientation of the vocational assessment process.

- e. Field questions from the visitors.
5. Guidance counselor gets feedback to vocational assessment official indicating those students whom she/he wishes to refer for evaluation, placing them in order of priority based on need.
6. The student is given additional information pertaining to the vocational assessment process by the evaluator upon entry (pp. 30-31).

## **INITIAL INTERVIEWS**

It is not the purpose of this section to describe how to conduct interviews. Suffice it to say that within vocational evaluation, as with other assessment methods, the initial interview serves a number of important functions. In many cases, it is the first direct one-to-one contact between the evaluator and the student. As such, it plays an important role in helping the evaluator not only establish rapport with the student, but it also helps in further orienting the student to his or her own vocational evaluation program. Beyond this, it offers evaluators an opportunity to explore important questions about the student which may not have been adequately addressed in the referral information, as well as confirm basic information such as family background, previous work experiences, etc. Most importantly, because the initial interview involves direct contact between student and evaluator, it is often the first step in the many behavioral observations the evaluator will make throughout the course of the evaluation. The evaluator will be interested in not only confirming and expanding on the student's background, but also observing his or her ability to communicate with people directly. The initial interview is in many ways similar to a job interview and as such, the evaluator will regard behavioral observations that take place during the initial interview as important.

Perhaps one of the most important functions of the initial interview is its value as an aid to the individual evaluation planning process. This process is described more fully in the following section. Appendix E provides one example of a useful initial interview reporting format.

## **THE INDIVIDUAL EVALUATION PLAN**

Individual evaluation planning is the next step in the vocational evaluation process. McCray (1978) described the individual evaluation plan as:

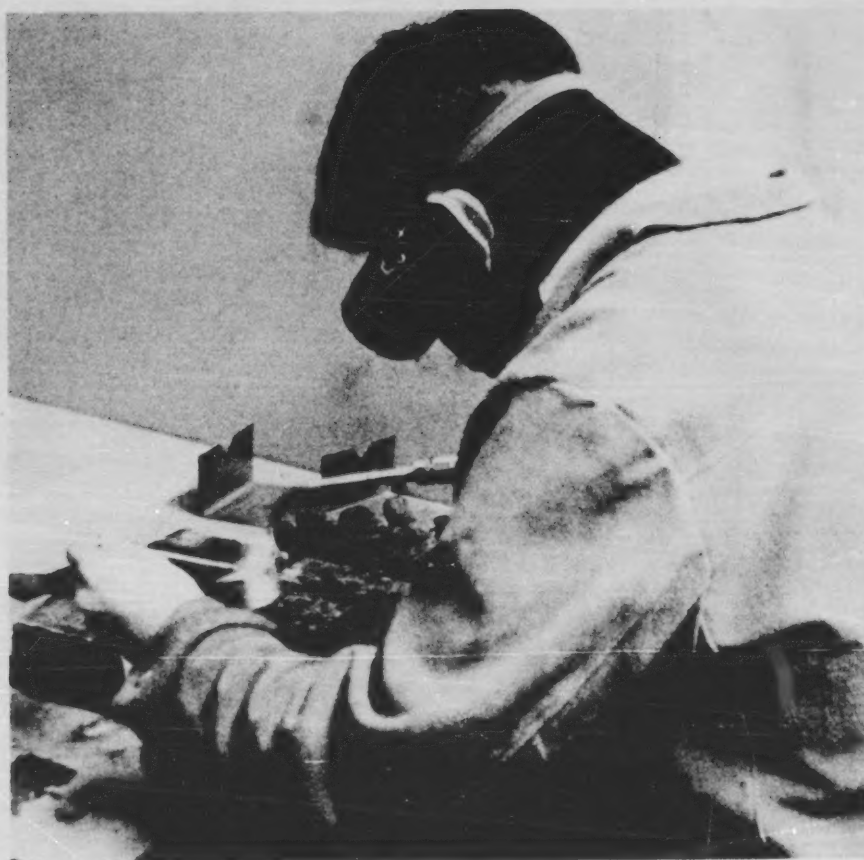
... an essential component of a comprehensive vocational evaluation process. It not only provides a master plan of the purposes and objectives of an evaluation, but also offers a written record of the assessment techniques used, who was involved in carrying out the evaluation and the extent to which specific goals were achieved; most importantly, however, it ensures that the unique needs of every individual client are given special consideration and that there will be an organized attempt to satisfy those needs in the most effective and efficient manner possible (p. 1).

What are the essential components of a sound evaluation plan? The Commission on Accreditation of Rehabilitation Facilities (1982) has outlined the four essential characteristics of an effective evaluation plan:

. . . Based on referral information, the initial interview, and the stated purpose of the evaluation, a specific written evaluation plan should be developed for each individual. This plan should:

- a. Identify the questions to be answered through the evaluation
- b. Indicate how these questions will be answered through the evaluation
- c. Where appropriate, specify persons (staff, family, etc.) who will be involved in carrying out the plan. There should be evidence that these individuals are aware of their role in carrying out this plan; and
- d. Periodically be reviewed and modified as necessary (p. 45).





The fundamental purpose of evaluation planning is to help ensure that each evaluation takes place in an organized, systematic way so that it addresses the unique needs of the individual in terms of the tools and techniques used, the personnel involved, and the necessary time needed to complete the evaluation. Individual evaluation planning helps ensure that vocational evaluation services will not be delivered in an assembly-line fashion wherein all students are administered the same tests, over the same basic period of time, with no specific goals in mind. McCray (1978) has outlined a ten step individual evaluation planning process.

1. Accumulation of referral information
2. Examination of referral information
3. Identifying referral questions
4. Identifying appropriate evaluation techniques
5. Listing persons involved and clarifying their roles
6. The initial interview
7. Plan modification
8. Formal testing begins/Plan review
9. Client performance completed/Exit interview
10. Individual evaluation plan completed

With this information in mind, a completed individual evaluation plan, along with an accompanying sample referral are included in Appendix F. It is important to keep in mind that individual evaluation planning is a dynamic process. It should not take place in a vacuum. Both the evaluator and the student must work together to develop a successful evaluation plan, and the plan must be flexible enough so that changes can be made as the evaluation progresses. This is because new questions may arise during the evaluation process, different assessment techniques may be needed which were not originally anticipated, and the student's vocational interests and goals may change during the evaluation. Thus, an effective evaluation plan is one that is carefully prepared but always open to modification and adaptation in terms of purposes, assessment techniques, personnel, and scheduling.

## ***FORMAL TESTING BEGINS***

Once the evaluator and student have prepared a mutually agreeable individual evaluation plan, the formal testing process begins. Administration of the previously described evaluation tools and techniques will generally follow a schedule based on the evaluation plan. The length of the evaluation is generally influenced by one of two types

of scheduling—block scheduling versus flexible scheduling. The New Jersey State Department of Education (1978) briefly described each type along with its advantages.

### SCHEDULING STUDENTS

1. Two methods:
  - a. Block—Student is scheduled for a specific length of time. Hopefully, the student will complete all of the tasks in the vocational assessment process prior to the termination date.
  - b. Flexible—No specific time period is prescribed. The student works at his/her own pace and is terminated from the vocational assessment process only when the evaluator feels a valid assessment has been obtained.
2. Advantages—Block
  - a. It is much easier for the personnel of the sending school and the vocational assessment unit to schedule students, utilizing the block system since they will be sending and receiving large groups of students at one time.
  - b. It is easier for a sending district since the referring school official will know exactly how long the student will be involved and can better make schedule changes and prepare the student's for his/her absence and return.
  - c. More students can be scheduled per year by keeping the vocational assessment time short.
3. Advantages—Flexible
  - a. The most obvious and important advantage is that it permits a student to work at his/her own rate, thus eliminating competition with his/her peers.
  - b. This method more readily permits heterogeneous grouping of students with various abilities.
  - c. The evaluator is not pressed for time to obtain a comprehensive assessment (pp. 31-32).

Careful scheduling is a critical aspect of the actual testing process. This is particularly true as the evaluator's caseload grows. Obviously, an evaluator working with five, ten or even more students at any given time, must carefully schedule the administration of different tests and situational activities. As the caseload decreases, scheduling may become less stringent, although planning is still important. And in cases where several evaluators are working simultaneously, each with large caseloads, careful scheduling is imperative so as to keep to a minimum the amount of time students spend in nonproductive activities such as waiting to work on a job sample with which other students are already occupied. The key to effective scheduling is careful planning among the evaluation staff prior to actual test administration.

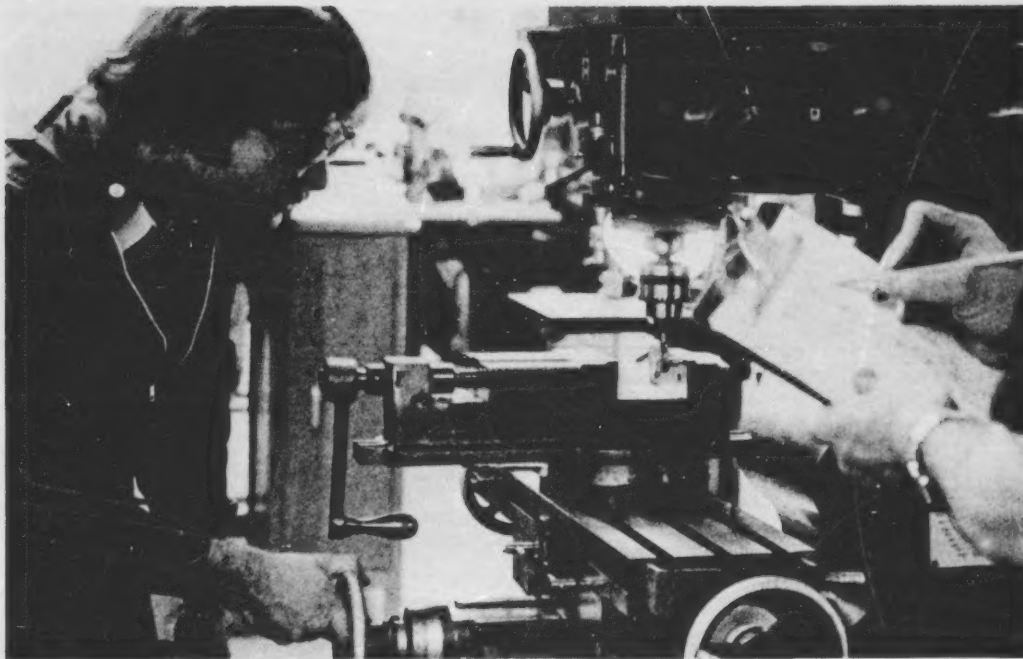
It should always be remembered that although the evaluator has a comprehensive written individual evaluation plan, it is always open to modification since events might necessitate changes in the plan. For example, if a plan was originally centered around assessing a student's ability to work as an auto mechanic, but during the early stages of testing and during occupational exploration the student discovers that he or she is also very interested in electronics, it would then be wise to modify the plan so as to address this new interest more fully. Such unexpected changes are not uncommon when working with students whose vocational goals are not well-established. The important point to remember is that the plan and the actual assessment process must be flexible enough to address these changing needs. Emphasis should be placed on the vocational evaluation process being adapted to the needs and interests of the student and not vice-versa.

Beyond accumulating statistical data and test scores, a crucial aspect of vocational evaluation is the behavior observation process. Behavior observation begins from the time the student enters the program, participates in the initial interview, is tested, and lasts until he or she leaves the center. It is important because basic work-related behaviors are crucial to finding and maintaining a job, regardless of specific job skills. Assessing the students punctuality, attendance, ability to get along with co-workers and supervisors, frustration tolerance, safety habits, ability to work independently, disruptiveness, hygiene and grooming are just a few examples of the important behaviors that will be observed and evaluated throughout the assessment process. In many cases, similar behavior observations will have already been made in the classroom. Vocational evaluation offers an opportunity to observe these worker characteristics in a different environment, a more work-oriented setting. As previously suggested, differences between classroom behavioral observations and the behavior that occurs in the vocational evaluation center, particularly where on-the-job training sites are involved, are not unusual.

An essential aspect of the actual testing process is the provision of ongoing feedback to the student. Unlike other forms of testing where feedback is often limited and delayed, vocational evaluation staff frequently strive to provide immediate feedback to students regarding their performance on a given task. This feedback is much more than simply relating the raw data to the student. Indeed, the communication that takes place between student and evaluator during the testing process is considered by many to be a counseling process designed to help students learn more about their abilities and interests during testing. This ongoing communication provides an excellent basis for modifying the evaluation plan should the student's interests or assessments of his or her capabilities shift dramatically during the testing. Ongoing, meaningful communication throughout the entire vocational evaluation process is an essential component of the vocational evaluator/student relationship. Thus, evaluators must be viewed as much more than just test administrators, and students must recognize that they have an important responsibility to communicate their feelings and observations during the testing process.

Because, the evaluator will selectively utilize the tools and techniques available to assess both specific job skills and work-related behaviors, this approach leads to the development of a sound profile of the student's overall work capabilities and limitations. By centering the evaluation on addressing specific questions about the student's work skills and behaviors, the evaluation and the tests and techniques selected become custom-tailored to fit the needs of the students. Not every student needs to take every work sample, psychometric test, etc. Nor does every student require the same amount of time to be evaluated. The assessment tools and techniques selected, as well as the time devoted to the student's evaluation, should be based on the specific goals and objectives of the indi-





vidual evaluation. Some students may be adequately evaluated in a few days while others may require weeks. Maximum flexibility in this regard will enhance the success of the evaluation program.

## STAFFING

Vocational evaluation is a team process wherein many different people may work with the student during the vocational evaluation process. And although one vocational evaluator generally has responsibility for coordinating the student's activities and working with him or her directly, this does not mean that other evaluation staff in the center will not work with the student. Indeed, if the student has been placed on a job site, a work study supervisor may have been responsible for



making the observations. In other cases, the student's vocational evaluator may have another evaluator work with the student on specialized tasks. Quite often, vocational evaluation technicians work with students extensively. This is particularly true where caseloads are heavy. In such instances, the student's vocational evaluator will generally organize a staffing prior to writing the student's vocational evaluation report. In these staffings, the evaluator, along with the other members of the assessment team, attempt to consolidate the data they have obtained, as well as explore additional questions about the student's performance. The goal is to develop an integrated picture of the student that will accurately reflect his or her performance over the days and, in some cases, weeks in which they were in the vocational evaluation center. It is an information sharing and problem solving process, with the end result reflected in timely, realistic recommendations which point out ways to better address the student's needs. It is not unusual for the student to attend these staffings since feedback and communication between center staff and the student has been encouraged throughout the entire evaluation process. It should also be noted that staffings may be called at any time during the evaluation. In many cases they may actually precede the development of the individual evaluation plan. In other cases interim staffings will occur during the assessment phase. Often, the purpose of interim staffings is to reevaluate the evaluation plan and make necessary modifications or address important matters that need immediate attention.

Finally, a different kind of staffing generally takes place after the evaluation report has been written. In this case, the evaluator may meet with the student, parents, the referral source, school psychologists, counseling and guidance personnel, etc., to discuss the recommendations and observations contained in the report. The goal of this staffing is often to provide additional information and clarification which will help the student, the parents, and school personnel utilize the information contained in the report to develop and/or modify the student's individual education plan based on the results of the evaluation. As Estes (1982) indicated:

. . . it has been found that vocational evaluation can be a powerful tool in the education of secondary handicapped students.

The process generates a great deal of data that has direct relevance to the development of The Individual Education Program. It identifies gaps, in a student's education, that are generally overlooked by traditional psychological assessment. It can provide the basis for rational communication among students, parents, teachers, and administrators through the development of relevant educational and vocational goals.

Vocational assessment can be instrumental in bringing about modified and improved instruction programs. It can provide the impetus necessary for changing secondary special education programs from being primarily remedial and academic in orientation, to being adaptive and functional in orientation. Such changes can result in increased motivation in handicapped students, who can see the relevance in learning survival skills and work competencies (p. 28).

## FINAL REPORT

Preparing a detailed, accurate final report that effectively communicates the results of the individual student's vocational evaluation is one of the most important responsibilities of the vocational evaluator. The VEWAA-CARF Vocational Evaluation and Work Adjustment Standards with Interpretive Guidelines and VEWAA Glossary (1978) defines the vocational evaluation report as:

A well planned, carefully written means of communicating vital vocational information about a client. It is a studied, permanent record of significant vocational data observed as a client and an evaluator interact in various types work or worklike situations. It puts the plan, action, findings, logic and interpretation of the evaluation in writing. It usually includes a picture of the client's worker traits and how they compare to minimal requirements of selected jobs or work areas, physical capacities, learning ability, personal characteristics, social competence, other vocational factors, and recommendations for further services. It may also provide a prescriptive-descriptive sequence of experiences which are aimed at maximizing an individual's vocational potential (p. 16).

Scelfo, and Micali (1976) suggest that the following information should be included in the final report:

1. A determination of the student's goals as being realistic based upon his/her performance on related work samples.
2. The student's work attitudes and work habits.
3. An objective performance level established through use of "hands-on" activities.
4. Data concerning skill training and/or modification dealing with work adjustment.
5. Identification of vocational strengths and weakness.
6. Interests and aptitudes.
7. Verification of the Child Study Team's/guidance counselor's vocational assessment of the student.
8. Recommendations concerning:
  - a. Specific pre-vocational or vocational programs.
  - b. Courses at the comprehensive school which would aid the student in succeeding at the vocational school.
  - c. Alternative curriculum at the comprehensive school in lieu of vocational training.
  - d. Remedial education.
  - e. The services of the Child Study Team.

- f. Counseling in attitudes, work habits, appearance, or attendance. The purpose of the report should be to help the counselor achieve his/her primary goal of assisting the student to gain skills which will permit him/her to reach functional independence. The report is also intended for the student's permanent record at his school (p. 27).

The New Jersey State Department of Education (1978) offered a series of eight general guidelines for report writing:

1. Be consistent.
  - a. Make sure the report reflects your judgement on any check-off sheet that may accompany it.
  - b. Be sure not to praise and criticize the same performance.
2. Write statements in a positive form.
3. Make statements in a positive form.
4. Avoid generalizations; be specific and factual.
5. Do not overwrite; omit needless words and avoid stilted phrases.
6. Avoid redundancy.
7. Be neat. Check grammar, clarity, and legibility.
8. Keep in mind that these reports are often utilized for determining the student's future educational and vocational training (p. 29).

The New Jersey State Department of Education (1978) went on to suggest a structured outline for report writing.

In general, a vocational evaluation report in the education setting follows an outline that includes:

1. Introduction
  - a. Attendance—Excused or unexcused tardiness: excused or unexcused absences. The evaluator should state when they occurred and the reasons for them.
  - b. Social interaction—Interaction with Peers.

Describe the manner in which the student relates to classmates. This description should only pertain to the interaction observed by the evaluator.
  - c. Interaction with the evaluator.

The evaluator states how the student interacts with him/her as well as with other adults or authority figures who are a part of the student's educational environment.



2. Career Goals

- a. Interests—The evaluator identifies the interests of the student based upon the findings of the assessment.
- b. Realistic or unrealistic—The evaluator notes goals that are realistic or unrealistic based upon the student's performance on related work samples/on-the-job evaluation/psychometrics.

3. Work Samples/On-The-Job Evaluation/Psychometrics

- a. Performance—The evaluator assesses and states the student's performance by describing the student's progress through the evaluation process.
- b. Work habits—The evaluator should describe and elaborate on how the student expresses or displays his/her feelings about assigned work and also the behaviors observed while performing it.
- c. Level of frustration—The evaluator should describe the student's reaction to his/her work. Indicate if the student got upset, gave up, or completed the task and the manner in which the student was able to handle any problems.
- d. Supervision—The evaluator should describe the amount of aid the student required in order to complete assigned work satisfactorily. She/he should also indicate whether the student was an independent worker, the amount of prodding required to either start or finish a task, or if initiative was displayed.

4. Behavior: Physiological and Emotional

- a. Comments related to physical or behavioral problems: If a problem exists in these areas, the evaluator should describe what is actually seen and not attempt to interpret the observed problem.
- b. Effect of the problem (s) upon the student's performance, either academic or vocational: The evaluator describes how the problem (s) affects the student's performance.

5. Additional Comments

The evaluator can use this section to substantiate findings made during the evaluation.

6. Recommendations

- a. Within the school where the assessment takes place.
- b. For other educational facilities.
- c. Agencies outside the education setting (pp. 28-29).

Certainly the structure and content of vocational evaluation reports will vary among different settings. Perhaps the most critical phase of report writing is the preparation of specific recommendations that will not only help facilitate the student's vocational development, but also recommendations that are realistic in light of the school's and community's available resources. Evaluators must be constantly informed concerning available resources and in most cases, help develop or locate additional resources that may not be readily available. Recommendations must not only be accurate and based on careful analyses and interpretation of the overall data; they must also be realistic. Recommending courses of action or remedial activities that are not readily available to the student and concerned school personnel can have a negative impact on the student and on the observed value of the vocational evaluation service itself. In cases where very few courses of action are available, vocational evaluation staff, in connection with other school personnel, may take it upon themselves to begin to plan, develop, and implement new programs and services designed to meet these needs.

The Maryland Department of Education (1977) defined 12 common areas of recommendations:

1. Remedial Education
2. Specific Work Area (s)
3. Behavior Change (s)
4. Vocational Counseling (School)
5. Department of Vocational Rehabilitation Counseling (DVR)
6. Physical Counseling (Vision, hearing, dental, etc.)
7. Program Change
  - a. Vocational Skill Training
  - b. Work Experience
  - c. Academic
  - d. Neighborhood Youth Corps (CETA)
8. Parent Conference and Involvement
9. Part-time Employment
10. Sheltered Placement
11. Career Exploration
12. Subsequent Community or School Referrals

A survey of recommendations was made from vocational evaluation reports of seven different educational settings. The findings of this survey include a wide variety of recommendations.

Further guidance and counseling, specific work areas in which the student could be trained, and remedial education were recommended five times each within the seven reports.

Work adjustment programs and further vision examinations were recommended three times each. Recommendations such as changes

in the students educational programs, further career exploration, and further hearing examinations were made two times each.

Sheltered placement, neighborhood youth corps, work experience programs, part-time employment, and parent conferences were given as a recommendation one time each in the reports surveyed.

These recommendations do not include all the different types that are given because the reports surveyed were for only seven students with seven different problems. But, the recommendations do reflect a general picture of the ones most used (p. 27).

Depending on the structure of the individual school system, its goals and objectives, and the resources available within the community, the types of recommendations that can be made will vary. In some cases, they may be more narrowly-defined. For example, the Texas Education Agency (1980) describes basic "vocational alternatives for handicapped students" within their system:

**Regular Vocational Classes.** Some handicapped students can succeed in regular vocational classes without support. These students typically will be handicapped students who are receiving noninstructional special education services, such as speech or related services.

**Regular Vocational Classes With Support.** A regular vocational class can be altered to accommodate special education students. This instruction should be provided to handicapped students who are otherwise assigned to resource rooms and who need adapted instruction. This support may include modification of instructional levels, modification of curriculum, extended time, specialized materials, adaptive equipment, aides, or other service to assist the student in a regular class. Excess costs incurred by providing this support may be covered by federal funds set aside for that purpose.

**Coordinated Vocational-Academic Education (CVAE).** The CVAE class is a more restrictive placement in that it is a separate class for certain populations. In addition to being handicapped, the student must be identified as either economically disadvantaged or academically disadvantaged.

**Vocational Education for the Handicapped (VEH).** The VEH class is a vocational class designed for handicapped students whose greater degree of impairment precludes integration into a regular vocational education class. It is a more restrictive placement for the more severely handicapped who are in special education programs. Students are instructed with a specially designed curriculum.

**Vocational Adjustment Class (VAC).** The VAC class is a special education vocational alternative. It also is considered a restrictive placement because the students do not benefit from having regular students within their special class. Ideally, this program is not the total vocational training provided the student but should complement the skill training provided in a vocational education program. Handicapped students may be appropriately placed in VAC classes when it

has been documented as the least restrictive placement for the individual.

Other Instructional Options as Approved by the Texas Education Agency. Current special education policies afford school districts the opportunity of developing other instructional options for handicapped students. In providing an array of secondary vocational education opportunities for handicapped students, options in addition to those described above are available if the need exists. These options may include on-campus and/or community-based work training activity centers, sheltered workshop activities, or other instruction/training arrangements (pp. 7-8).

How important is effective report writing. Coffey (1970) pointed out that unless the vocational evaluation report is carefully prepared, the evaluation itself will be of limited value since the data will not be adequately communicated. Thus, report writing should always be considered one of the most critical responsibilities of the vocational evaluator. Effective reports, that clearly and concisely communicate the overall results of the evaluation and their implications, are essential to helping ensure that the student has every opportunity to obtain the services needed to further his or her vocational development. Appendix G provides an example of a completed vocational evaluation report. For more information on this important subject, readers should obtain the publication *Effective Report Writing*, available from the Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751.

## ***FOLLOW-UP***

Careful follow-up is one of the most important, yet most overlooked responsibilities of the comprehensive vocational evaluation center. It is essential that vocational evaluation personnel have a sound understanding of the extent to which their recommendations were followed once the student leaves the center. Follow-up provides a systematic method for evaluating the efficiency of the recommendations as well as the availability and utility of outside resources that were listed in the recommendations. Follow-up also provides a means for identifying problem areas both directly and indirectly related to the actual vocational evaluation process. The Maryland State Department of Education (1977) identified a three-phase follow-up procedure:

The follow-up procedures are three-fold. Follow-up with the student evaluatees can begin on the last day of evaluation if a concluding, wrap-up type conference is held. This means of follow-up begins to uncover the effect that the evaluation experience had on the student.

Once the written reports are disseminated to the recipients, the recommendations can be initiated and follow through begins. A staffing conference is usually held between the evaluator, the recipients of the reports, and other individuals directly involved with the student. Feedback concerning the effect that evaluation has had on the student can be gathered from other sources such as the referring counselor, the student's teachers, and/or the evaluatee's parents. Some frequent effects that an evaluation experience may have are changes in



the student's job goal, improvement of the student's self-image, improved interest in school, and a firmer concept of the demands of work and better behavior.

In a few cases, a specific person is designated as the one responsible for seeing that the evaluation recommendations are carried out. In some programs, recommendations are not devised solely by the evaluator, but are formulated at a staffing conference. These are typed and attached to the report.

The school system follows up on the work of the assessment or evaluation staff. The credibility, value, and permanency of the vocational evaluation program are determined by the follow-up. Whether the recommendations were being followed can also be monitored by new programs that are developed, or old ones that are modified to fit the special needs student. The schools may also discover if it is feasible and practical to serve a wider range of students and whether the evaluation has led to educational and occupational placements, or to training and remediation within its existing programs.

The third reason for follow-up is a means of self-evaluation for the assessment program. Important points to consider are:

1. Does the data generated fulfill the needs of the referral source?
2. Do the evaluation activities accurately simulate and reflect the needs of the community job market?
3. In what ways can the evaluation process be improved?

Follow-up of this type can also provide information necessary for annual reports and for an analysis of the amount and type of services that have been provided. Input from sources outside the school and evaluation center may also provide feedback through new research, literature, and new methods or techniques being used in vocational evaluation.

Successful ways of conducting follow-up may range from a phone call to written questionnaires. Phoning the referring counselor is often the quickest way to determine if the recommendations were implemented and what progress the student is making. A more formal means of follow-up can be done with a "teaming" or "staffing" conference. This usually involves a number of people including the counselors, evaluator, teachers, therapists, student, and/or parent. In this way, all those involved with the student can discuss his progress and come to conclusions about what happens to the student next. These conferences may be held immediately after the evaluation has been performed or several months later.

A mass form of follow-up can be conducted by means of a written questionnaire. The participants in the evaluation services, e.g., counselors, teachers, parents, and students are then afforded the opportunity to respond to specific information the evaluation staff or school authorities ask for.

Another means of follow-up may occur several months or years after the evaluations have been performed. All students evaluated, or a small sample of the total number, may be recalled to determine where they now stand on the employment ladder. The information generated from such research can help the evaluation staff decide if the recommendations made were feasible, if the evaluation tools can accurately predict success, if the auxiliary personnel involved carried the recommendations through, and if school programs adjusted to serve the students (pp. 27-29).

Regardless of the specific follow-up procedures used, the important point to remember is that follow-up is essential. A systematic, well-managed program evaluation system is one of the key ingredients of a successful vocational evaluation program. The information derived from a sound program evaluation system will serve as an invaluable asset in enhancing the accountability, responsiveness, and quality of the overall program of services. The Commission on Accreditation of Rehabilitation Facilities (1977) described ten standards for developing a program evaluation system for rehabilitation facilities.

- 9.1 The evaluation system shall provide for a statement of purposes, program goals, and objectives.
- 9.1.1 The statement of purposes, program goals, and objectives shall be written and available for review.
- 9.2 There shall be a relationship between the statement of purposes, program goals, and objectives, who is served, and services provided.
- 9.3 Statements of program goals and objectives shall meet the following conditions:
- 9.4 The facility's evaluation system shall provide for measures of effectiveness.
- 9.5 The facility's evaluation system shall provide for measures of the efficiency of the facility.
- 9.6 There shall be a system to describe and monitor who is being served by the facility.
- 9.7 The evaluation system results shall be communicated to appropriate parties and be utilized in facility decision-making.
- 9.8 Appropriate information or results shall be made available in an understandable fashion to the governing body and staff of the facility and to the public, including purchasers, contributors, and consumers.
- 9.9 The facility shall have a mechanism to provide for a continuous review of the adequacy of its evaluation system (p. 5).

These standards provide a useful framework for the development of a program evaluation system for school-based vocational evaluation programs. Certainly they must be adapted and further refined based on the local needs and demands of the school set-

ting and the purposes of the vocational evaluation program. In addition, it should always be recognized that an effective program evaluation system is one that is not overly cumbersome and difficult to manage. A concise, practical program evaluation system, which can provide essential data in a timely, cost-efficient manner, can greatly enhance the impact and utility of the vocational evaluation program.

*Vocational Evaluation and Assessment in School Settings*





## ***VOCATIONAL EVALUATION AND THE IEP***

The National Association of Vocational Education Special Needs Personnel Committee on Vocational Assessment (1981) indicated "all vocational training plans for special needs students should be based on vocational assessment information" (n.p.). With this in mind, it is evident that whenever vocational development is considered as a significant component of the student's overall educational preparation, vocational evaluation can play an important role in facilitating the planning process.

The IEP places heavy emphasis on two primary areas of concern 1) identifying student needs and 2) developing methods and activities specifically designed to meet those needs. With the four fundamental goals of vocational evaluation in mind (assessment, prescription, prediction, behavior change) it is clear that vocational evaluation services fit well within the philosophical framework of the IEP process. Data derived from vocational evaluation services can be useful in not only identifying the vocational needs of individual students, but also in serving as an important means for developing appropriate courses of action designed to meet those needs.

The Commission on Accreditation of Rehabilitation Facilities (1982) has identified a number of important areas which represent the focus of vocational evaluation services in rehabilitation-oriented programs. These areas of concern are also important to school-based programs, since they represent categories which will help define the functional limitations and capabilities of the student. Note that these are regarded as minimum areas of concern. In other words, a comprehensive program of vocational evaluation services will seek to address each of these areas with all of the students/clients. Additional evaluation objectives will be established on an individual basis with each student/client.

1. The range and scope of the evaluation services should be sufficiently comprehensive to assess or obtain information concerning at least the following:
  - a. Physical and psychomotor capacities;

- b. Intellectual capacities;
- c. Emotional stability;
- d. Interests, attitudes, knowledge of occupational information;
- e. Personal, social, and work histories;
- f. Aptitudes;
- g. Achievements (e.g., education, vocational);
- h. Work skills and work tolerance;
- i. Work habits (e.g., punctuality, attendance, concentration, organization, interpersonal skills);
- j. Work-related capabilities (e.g. mobility, communication, hygiene, money management, homemaking);
- k. Job seeking skills;
- l. Potential to benefit from further services which are specifically identified;
- m. Possible job objectives;
- n. The individuals' ability to learn about themselves as a result of the information obtained and furnished through the evaluation experience; and
- o. Assessment of the most effective mode of understanding and responding to various types of instructions (p. 44).

Certainly any systematic, competent effort to address each of these areas of concern, will result in the development of important information which can aid in the development of the student's IEP. The more clearly defined the student's needs and capabilities, the more likely will be the success of the ensuing services and activities spelled out in the IEP. Vocational evaluation data is typically most useful when it preceeds the development of the IEP. Including professional vocational evaluation staff is essential whenever developing an IEP for special needs students who have received vocational evaluation services. The professional vocational evaluator is the one individual most capable of analyzing and synthesizing the vocational evaluation data into a meaningful course of action. Working in conjunction with other members of the IEP team, the vocational evaluator can provide valuable insight into the vocational implications of the evaluation data and the IEP. The vocational evaluator can also help ensure that important data generated from the vocational evaluation is neither overlooked nor misinterpreted during the IEP process. In return, vocational evaluators must be thoroughly knowledgeable with regard to the overall IEP process, the resources available to the student, and the specific role the vocational evaluator will play as a member of the IEP team.

Once the student's work-related needs and capabilities have been thoroughly assessed and evaluated, the IEP team can use the vocational evaluation data in a number of ways to develop goal-directed, measurable objectives for facilitating the student's

vocational development. The data and insights gained from vocational evaluation services in school-settings can be used in many ways including:

- 1) Designing appropriate instructional adaptations
- 2) Modifying curriculums
- 3) Adapting training environments
- 4) Developing specific vocational objectives
- 5) Identifying prevocational training needs
- 6) Identifying prosthetic devices or rehabilitation engineering resources/methods that could enhance performance
- 7) Developing behavioral treatment strategies
- 8) Identifying appropriate community resources
- 9) Developing appropriate work study sites
- 10) Monitoring long-term vocational development
- 11) Enhancing academic course selection.

The information generated from a student's vocational evaluation program should not be considered an end, in and of itself. Rather it is a beginning, the outcome of a unique diagnostic process designed to facilitate the student's continued development. When viewed in this manner, vocational evaluation represents one essential component of a comprehensive approach to furthering students overall academic, personal, social, and vocational growth.

*Vocational Evaluation and Assessment in School Settings*





## SUMMARY

Vocational evaluation has certainly been proven to be a valuable tool for enhancing the vocational development of handicapped and disadvantaged students and adults. As a diagnostic process, it is useful for identifying and quantifying the vocational competencies of special needs students. As a prescriptive tool, it can aid in the planning of appropriate remedial activities designed to help the student overcome specific obstacles to employment. As a predictive tool, it is also useful in helping identify prospective job/training areas that would be most compatible with the student's interests and capabilities. It can also greatly enhance the training process, since the diagnosis of work-related behaviors, interests, temperaments, and learning style preferences can facilitate the development of more specific, goal-directed IEP's which will, in turn, provide a justification as well as a mechanism for developing important instructional adaptations and modifying training/educational curriculums. Finally, although vocational evaluation is primarily a diagnostic process, it has been shown that it also plays an active role in behavior change. As a result of the communication that takes place between evaluators and students during the actual assessment process, students that successfully complete their vocational evaluation programs are likely to experience significant growth in terms of having a better understanding of their capabilities, the world of work, and the options that await them. They should better understand their work-related needs as well as which courses of action are likely to facilitate their vocational development. In short, vocational evaluation services should serve as a direct and immediate stimulus to the student's vocational development.

What is the future of vocational evaluation services in school settings? As long as career development and vocational education continue to play important roles in the education of special needs students, vocational evaluation will remain a worthwhile service. As Peterson et. al. (1982) indicated:

Rational career development necessarily involves the specification of a career goal, the determination of skills and abilities needed to succeed in that career, a determination of existing skills and abilities of the individual, and the formulation of a training plan that will enable the individual to meet these goals (p. 22).

Certainly, vocational evaluation fits well within this philosophy. The continued growth and development of vocational evaluation programs in schools will, however, be largely dependent on the emphasis individual schools, administrators, parents, teachers, counselors, students, and others place on providing functionally-oriented, vocational services to their special needs students. At the present time, there continues to be a growing interest in this philosophy. As Estes (1980) concluded, there is a continuing need to:

. . . move away from the emphasis on remedial academic instruction and begin to implement programs designed to develop the functional competencies necessary for everyday living and gainful employment (p. 30).

The purpose of this publication has been to provide educators with a rationale and blueprint for the development of vocational evaluation services in school settings. The fundamental principles and practices of vocational evaluation, its tools and techniques, and a model vocational evaluation process have been described. It is hoped that with this information in mind, educators will not only have a better understanding of the practice of vocational evaluation, but will also have more insight into the many ways in which vocational evaluation programs can enhance the educational development of handicapped students.

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## Appendix A

# VOCATIONAL EVALUATION SYSTEM OUTLINE

### 1. Development

- a. Sponsor – The organization that originally funded or financed the development of the vocational evaluation system.
- b. Target Group – What specific populations, such as disadvantaged, mentally retarded, or physically handicapped, was the system designed to serve?
- c. Basis of the System – What theoretical or organizational principle, such as the *Dictionary of Occupational Titles*, was used as a basis for development?

### 2. Organization

- a. Name and Number of Work Samples – How many work samples does the system contain? What are the names of the work samples?
- b. Grouping of Work Samples – What is the arrangement of the individual work samples within the system? Are several work samples grouped in a hierarchy or is each work sample independent?
- c. Manual – What are the organization and contents of the manual(s)? Does it provide all the details that the evaluator needs to know in order to use the system?

### 3. Physical Aspects

- a. Packaging of the work samples – How are work samples packaged for sale? Does each work sample “stand alone” or must tools and equipment be shared with other work samples?
- b. Durability – How durable are the tools and equipment in the system? If the system uses audiovisual components, how prone to breakdown are they?
- c. Expendable Supplies – How much and what type of expendable supplies (e.g., wood, paper, wire) are needed per client?
- d. Replacement – To what degree can supplies and materials (e.g., tools, nuts and bolts, colored chips) be obtained locally or must they be ordered from the developer?

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Source: Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751. *A Comparison of Commercial Vocational Evaluation Systems*, 1980.

#### 4. *Work Evaluation Process*

- a. Preliminary Screening – What information is needed or what decisions must be made before a client can be administered the system?
- b. Sequence of Work Sample Administration – In what order are the work samples administered?
- c. Client Involvement – To what extent is the client informed of his/her progress during the course of administration? What type, if any, of formal feedback is given to the client after the entire battery has been administered? What type of contact does the client have with the evaluator?
- d. Evaluation Setting – Does the general environment attempt to simulate industry, produce a classroom atmosphere, or resemble a formal testing situation?
- e. Time to Complete the Entire System – How long does it take the average client to complete all the work samples in the system?

#### 5. *Administration*

- a. Procedures – Are the purposes of each work sample, materials needed, layout, and general instructions clearly given so that there is little chance of misinterpretation?
- b. Method of Instruction Giving – How does the client receive his/her instructions for the work samples in the system, for example: oral demonstration, written instructions, or audiovisual?
- c. Separation of Learning/Performance – Does the work sample have separate practice (learning) and performance periods: Are there definite criteria (e.g., three correct assemblies; the lines drawn within  $\pm 1/16$  inch) that must be met before the client can progress from a practice period to a performance period.
- d. Providing Assistance to the Client – What procedures are there for giving extra or additional instruction, demonstrations or feedback after the period of initial instructions?
- e. Repeating Work Samples – What provisions are made for the re-administration of some work samples and what is the purpose of re-administration?

#### 6. *Scoring and Norms*

- a. Timing – What are the procedures for timing the client?
- b. Timing Interval – When does the evaluator start timing the client and when does he stop? Are there specific cut-offs or does the client continue until the work sample is completed?
- c. Time Norms – What is the procedure for reporting the time score for each work sample?
- d. Error Scoring – What procedures, such as a random check of some parts, general rating of overall quality, or a comparison to standards, are used for determining errors?
- e. Scoring Aids – What use is made of overlays, templates, models, etc., to make scoring more accurate and easier for the evaluator?

- f. **Quality Norms** – What procedures are used for reporting the number of errors, quality ratings, etc., for each work sample? What, if any, type of a rating system is used?
- g. **Emphasis in Scoring** – Does the system emphasize time or errors in the scoring process or are both given equal weight?

#### 7. *Observation of Clients*

- a. **Work Performance** – Are work performance factors (e.g., fine finger dexterity, color perception) listed for the system and are specific work performance factors given for each work sample?
- b. **Work Behaviors** – Are work behaviors (e.g., ability to follow instructions, communication with supervisors) defined for the system and are specific work behaviors to be observed for each work sample?
- c. **Recording System** – What procedures does the system have for the recording, describing, and rating of observed work performance and work behaviors?
- d. **Frequency of Observation** – How often and to what extent is the evaluator to observe and record client behavior?

#### 8. *Reporting*

- a. **Forms** – What forms for recording time and quality, work performance, work behavior, etc., are used for each work sample in the system?
- b. **Final Report Format** – What information is included in the final report and what type of format (e.g., rating scales, free narration) is used to present the information? Is a final report format and/or example given in the work sample manual?

#### 9. *Utility*

- a. **Vocational Exploration** – Does the system provide experiences that the client can readily relate to real jobs?
- b. **Vocational Recommendations** – Are training and job recommendations specific or general? How are they related to the DOT or other job classification systems? Can extended evaluation work adjustment, etc., be recommended as a result of this system?
- c. **Counselor Utilization** – Can the system provide the counselor or referring agency with useful information and to what extent is the counselor involved in the process?

#### 10. *Training in the System*

- a. **Training Required** – Is formal training required before the system is sold?
- b. **Training Available** – Is formal training available? Where is it available?
- c. **Duration** – How much time is required for training?
- d. **Follow-up** – Is technical assistance available after purchase and training?

## 11. *Technical Considerations*

- a. Norm Base – On what types of populations (e.g., client, employed workers, general populations) was the system normed, and are these norm groups clearly defined? Are norm groups of adequate size for practical use? Are predetermined time standards, such as Methods-Time-Measurement, used?
- b. Reliability – What empirical evidence is there to demonstrate that the system and its component work samples gives reliable or consistent results? Are the research methods, sample sizes, etc., described in enough detail to permit the user to judge the meaningfulness of any data?
- c. Validity – What content, construct or empirical validity data is available to indicate that the system really does what it claims, such as make more realistic choices, job and/or training success, etc.? Are research methods, sample sizes, etc., described in enough detail to permit the user to judge the meaningfulness of any data?



| Outline                           | COATS                                                                                 | HESTER                                       | McCarron-Dial                                          |
|-----------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------|
| 1. Development                    |                                                                                       |                                              |                                                        |
| a. Sponsor                        | Prep, Inc.                                                                            | Goodwill Industries of Chicago               | McCarron & Dial                                        |
| b. Target Group                   | manpower, secondary education and rehabilitation                                      | all intelligence levels, physically disabled | mentally retarded, mentally ill, learning disabilities |
| c. Basis of System                | research studies of need areas                                                        | DOT                                          | 5 neuropsychological factors                           |
| 2. Organization                   |                                                                                       |                                              |                                                        |
| a. Number of Work Samples         | 4 components - job matching, employability attitudes, work samples, and living skills | 28 test scores                               | 17                                                     |
| b. Grouping of Work Samples       | 26 work samples; each is independent                                                  | grouped into 7 factors                       | grouped into 5 factors                                 |
| c. Manual                         | separate manual for each component, contains all details                              | contains most system details                 | 4 manuals; very detailed                               |
| 3. Physical Aspects               |                                                                                       |                                              |                                                        |
| a. Packaging of Work Samples      | each separately packaged in a portable container                                      | some individually packaged                   | 5 separate briefcase-like kits                         |
| b. Durability                     | durable                                                                               | estimate fairly durable                      | not applicable                                         |
| c. Expendable Supplies            | wood, sheet metal, wire, etc.                                                         | staples and paper                            | no consumable materials use                            |
| d. Replacement                    | supplies locally                                                                      | supplies locally, parts from distributor     | must be ordered from manufacturer                      |
| 4. Work Evaluation Process        |                                                                                       |                                              |                                                        |
| a. Preliminary Screening          | not required                                                                          | not required                                 | client interview                                       |
| b. Sequence of Administration     | components and work samples may be given in any order                                 | no specified order                           | in order by factors                                    |
| c. Client Involvement             | extensive client involvement                                                          | little during testing                        | encouraged                                             |
| d. Evaluation Setting             | classroom atmosphere                                                                  | formal testing setting                       | formal testing and workshop                            |
| e. Time to Complete Entire System | 52 to 93 hours                                                                        | 5 hours                                      | 2 weeks recommended                                    |

| Micro-TOWER                                                                                                                            | JEVS                                                                                                       | Valpar #17                                                                                                                               | TAP                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| ICD Rehabilitation & Research Center<br>general rehabilitation population<br>DOT                                                       | U.S. Department of Labor<br>initially for disadvantaged<br>DOT                                             | Valpar Corporation<br>mentally retarded<br>not specified                                                                                 | Talent Assessment Programs<br>age 14 up; mental levels above trainable mentally retarded<br>occupational clusters |
| 13<br>5 groups of general attitudes<br>general manual, separate manual for each work sample contains all system details                | 28<br>10 Worker Trait Groups<br>contains all system details                                                | 11 assessment techniques using different formats<br>5 areas<br>general manual; separate manual for each area detailed                    | 10<br>each is independent<br>some details not provided                                                            |
| each work sample packaged separately<br>durable<br>wire only<br>all forms locally if desired                                           | each work sample packaged separately<br>very durable<br>paper, fabric, string<br>most purchased locally    | each of the 5 areas packaged separately<br>very durable<br>no consumable materials<br>forms ordered from developer or locally reproduced | all individually packaged<br>extremely durable<br>no consumable materials<br>locally or from distributor          |
| not required<br>discretion of evaluator<br>extensive client involvement<br>combination of formal testing and counseling<br>15-20 hours | not required<br>progressive from easiest to hardest<br>some<br>realistic work setting stressed<br>6-7 days | not specified<br>any order<br>considerable<br>not specified<br>5½ hours                                                                  | not specified<br>8 of the work samples can be given in any order<br>not specified<br>not specified<br>2½ hours    |

| Outline                                                                                                                                                                          | COATS                                                                                                                                                                                          | HESTER                                                                                                                                                                                    | McCarron-Dial                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Administration<br>a. Procedures<br>b. Method of Instruction Giving<br>c. Separation of Learning/Performance<br>d. Providing Assistance to Client<br>e. Repeating Work Samples | specified in detail<br>audiovisual<br>very little<br>little assistance after timing begins<br>not specified                                                                                    | omits many details<br>oral and demonstration<br>not applicable<br>no assistance after timing begins<br>if necessary, after two weeks                                                      | specified in detail<br>oral and demonstration<br>not applicable<br>little assistance provided<br>if necessary                                                             |
| 6. Scoring and Norms<br>a. Timing<br>b. Timing Interval<br>c. Time Norms<br>d. Error Scoring<br>e. Scoring Aids<br>f. Quality Norms<br>g. Emphasis in Scoring                    | evaluator times client or client times self<br>not specified<br>computer generated scores, hand scored option for work samples<br>compared to standards<br>not used<br>skill rating<br>quality | evaluator times client<br>varies with type of test<br>no separate time norms given<br>no separate error scores given<br>not used<br>not used<br>time to completion or number of responses | evaluator times client<br>specified time limits<br>some separate time norms<br>compared to standards<br>not used<br>combined with time norms for overall score<br>quality |
| 7. Observation of Clients<br>a. Work Performance<br>b. Work Behaviors<br>c. Recording System<br>d. Frequency of Observation                                                      | no factors recorded<br>some factors defined<br>none used; number of behaviors recorded<br>not specified                                                                                        | Because the Hester uses psychological and psychophysical tests, no behavior observations are made.                                                                                        | factors identified<br>clearly defined<br>2 separate instruments used<br>2 hours for 5 days                                                                                |
| 8. Reporting<br>a. Forms<br>b. Final Report Format                                                                                                                               | standardized forms for all phases<br>computer based printout, four page optional hand scored evaluation report                                                                                 | standardized forms for all phases<br>computer generated report lists specific jobs and other data                                                                                         | standardized forms for all areas<br>profile of results and recommendations                                                                                                |

| Micro-TOWER                                                                                                                                                                                                | JEVS                                                                                                                                                                                                                                                            | Valpar #17                                                                                                                                                                                                                                           | TAP                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>specified in detail</p> <p>audio cassette, evaluator demonstrations</p> <p>stressed, almost total</p> <p>no assistance after timing begins</p> <p>not specified</p>                                     | <p>specified in detail</p> <p>oral and demonstration</p> <p>minimal</p> <p>assistance lowers score</p> <p>not recommended</p>                                                                                                                                   | <p>specified in detail</p> <p>oral, and demonstration or oral and demonstration with a sample audiovisual</p> <p>minimal</p> <p>not specified</p> <p>strongly recommended</p>                                                                        | <p>not specified in detail</p> <p>oral and demonstration</p> <p>some</p> <p>none</p> <p>encouraged for upgrading</p>                                                                                                                        |
| <p>cassette tape</p> <p>specified time for each work sample</p> <p>no time norms used</p> <p>number completed; pieces correct</p> <p>some use</p> <p>rated on 5 point scale</p> <p>emphasis on quality</p> | <p>client uses time clock</p> <p>from end of instructions to completion of task</p> <p>rated on 3 point scale</p> <p>random check, compared to standards</p> <p>minimal use</p> <p>most rated on a 3 point scale</p> <p>time and quality given equal weight</p> | <p>only one time score used on entire system</p> <p>preset for the one task</p> <p>used only for one task</p> <p>except for one area number of correct responses</p> <p>not used</p> <p>based on total points</p> <p>number of correct responses</p> | <p>evaluator times client</p> <p>from end of instructions to completion of task</p> <p>actual time recorded</p> <p>client corrects mistakes on some tests</p> <p>not used</p> <p>combined with time norms for overall score</p> <p>time</p> |
| <p>no specific factors defined</p> <p>5 work behaviors listed</p> <p>none</p> <p>frequent observations expected</p>                                                                                        | <p>16 specific; 4 general factors specified</p> <p>clearly defined</p> <p>3 point rating scale</p> <p>extensive observation</p>                                                                                                                                 | <p>no factors listed</p> <p>some specific areas defined</p> <p>3 point rating scale</p> <p>not specified</p>                                                                                                                                         | <p>no factors defined</p> <p>no factors defined</p> <p>no rating method used</p> <p>not specified</p>                                                                                                                                       |
| <p>standardized forms for all phases</p> <p>3 separate forms used to report different results</p>                                                                                                          | <p>standardized forms for all phases</p> <p>standardized format recommends Worker Trait Groups</p>                                                                                                                                                              | <p>standardized forms for recording and scoring</p> <p>not used; depends upon facility</p>                                                                                                                                                           | <p>two standardized forms</p> <p>profile of results and narrative report</p>                                                                                                                                                                |



| Outline                       | COATS                                              | HESTER                           | McCarron-Dial                                                |
|-------------------------------|----------------------------------------------------|----------------------------------|--------------------------------------------------------------|
| 9. Utility                    |                                                    |                                  |                                                              |
| a. Vocational Exploration     | extensive occupational information given to client | little use to client             | little use to client                                         |
| b. Vocational Recommendations | specific jobs and groups of jobs                   | completely related to DOT        | 1 of 5 program areas are recommended                         |
| c. Counselor Utilization      | designed for client self-interpretation            | designed for counselor's use     | disability determination                                     |
| 10. Training in the System    |                                                    |                                  |                                                              |
| a. Training Required          | no                                                 | yes                              | yes                                                          |
| b. Training Available         | yes                                                | yes                              | yes                                                          |
| c. Duration                   | 3-5 days                                           | 2 days                           | 3 days                                                       |
| d. Follow-up                  | yes                                                | not specified                    | not required                                                 |
| 11. Technical Considerations  |                                                    |                                  |                                                              |
| a. Norm Base                  | student norms on work samples                      | little information available     | several groups of disabled clients                           |
| b. Reliability                | data in manuals                                    | test-retest reliabilities high   | high .80's; low .90's                                        |
| c. Validity                   | data in manuals                                    | manual contains very little data | considerable data in manuals; separate studies in literature |

| Micro-TOWER                                                                                                                  | JEVS                                                                      | Valpar #17                                                                                                                       | TAP                                                                                |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| some direct client use<br>related to DOT<br><br>designed for counselor use                                                   | limited use<br>highly related to the DOT<br><br>oriented toward counselor | some direct client use<br>largely dependent upon<br>user<br><br>results of each specific<br>task designed for<br>counselor usage | very limited use<br>related to specific jobs<br><br>orientated toward<br>counselor |
| no<br>yes<br>2 or 3 days<br>not specified                                                                                    | yes<br>yes<br>1 week<br>yes                                               | no<br>yes<br>1 day or more<br>as requested by user                                                                               | yes<br>yes<br>1½ days<br>as needed                                                 |
| 19 different norm groups<br>adequate data in manuals;<br>high reliabilities<br><br>construct concurrent<br>validity reported | 1100 clients<br>no data available<br><br>no recent data are<br>available  | "research norms"<br>no data available<br><br>no data available                                                                   | 7 different norm groups<br>.85 coefficient of stability<br><br>no data available   |

| Outline                           | TOWER                                                                                                              | Valpar                                                       | Singer                                  |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------|
| 1. Development                    |                                                                                                                    |                                                              |                                         |
| a. Sponsor                        | Vocational Rehabilitation Administration                                                                           | Valpar Corporation                                           | Singer Educational Division             |
| b. Target Group                   | physically and emotionally disabled                                                                                | general population, industrially injured worker              | special needs population                |
| c. Basis of System                | job analysis                                                                                                       | trait and factor                                             | groups of related jobs                  |
| 2. Organization                   |                                                                                                                    |                                                              |                                         |
| a. Number of Work Samples         | 93                                                                                                                 | 16                                                           | 25                                      |
| b. Grouping of Work Samples       | 14 training areas                                                                                                  | each is independent                                          | each is independent                     |
| c. Manual                         | single manual; some details not provided                                                                           | separate manual for each work sample; most material detailed | single evaluators manual; very detailed |
| 3. Physical Aspects               |                                                                                                                    |                                                              |                                         |
| a. Packaging of Work Samples      | Because ICD does not sell hardware, each facility must construct their own. This section is not relevant to TOWER. | all individually packaged                                    | each self-contained in a carrel         |
| b. Durability                     |                                                                                                                    | very durable                                                 | expect some problems                    |
| c. Expendable Supplies            |                                                                                                                    | few consumable supplies used                                 | wood, wire, chemicals                   |
| d. Replacement                    |                                                                                                                    | order from developer                                         | supplies locally or through Singer      |
| 4. Work Evaluation                |                                                                                                                    |                                                              |                                         |
| a. Preliminary Screening          | emphasized for planning                                                                                            | not required                                                 | not required                            |
| b. Sequence of Administration     | progressive within areas                                                                                           | discretion of evaluator                                      | discretion of evaluator                 |
| c. Client Involvement             | not specified                                                                                                      | minimal                                                      | extensive client involvement            |
| d. Evaluation Setting             | realistic work setting stressed                                                                                    | not specified                                                | classroom atmosphere                    |
| e. Time to Complete Entire System | 3 weeks                                                                                                            | estimate about 1 hour per work sample                        | 2½ hours per work sample                |

| VIEWS                                                                                                                                                | VITAS                                                                                                                                                  | Brodhead-Garrett                                                                                                                                                 | WREST                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Philadelphia JEVS<br>mentally retarded<br>DOT                                                                                                        | Manpower Administration<br>employment service<br>applicants<br>DOT                                                                                     | Brodhead-Garrett<br>handicapped and<br>disadvantaged<br>not specified                                                                                            | Jastak Associates<br>severely disabled -<br>mentally and physically<br>not specified                                       |
| 16<br>4 areas of work<br><br>very detailed                                                                                                           | 15<br>15 Worker Trait Groups<br><br>detailed                                                                                                           | 18 work samples - Phase I<br>Phase I - sorting,<br>assembly, and salvage; by<br>3 phases<br><br>separate manual for each<br>phase. Phase I lacks many<br>details | 10<br>each work sample is<br>independent<br><br>well organized manual;<br>contains all details                             |
| most individually in<br>portable plastic cabinets<br>very durable<br>paper, string, fiberboard<br>supplies locally; parts<br>from developer          | each packaged separately<br><br>very durable<br>paper, string, sheet metal<br>supplies locally; parts<br>from developer                                | Phase I - packaged in<br>large wooden cabinet<br>very durable<br>Phase I - minimal amount<br>assumed to be from local<br>sources                                 | system packaged in wood<br>cabinet<br>durable<br>mostly paper products<br>from developer                                   |
| not required<br>progressive from least to<br>most complex<br>extensive client<br>involvement<br>realistic work setting<br>stressed<br>20 to 35 hours | not specified<br>progressive from easiest to<br>most difficult<br>considerable client<br>involvement<br>realistic work setting<br>stressed<br>15 hours | not required<br>discretion of user<br><br>assume fairly high degree<br>of involvement<br>mostly classroom<br><br>reviewer estimates Phase I<br>in 1 week         | not required<br>discretion of evaluator<br><br>clients told purpose and<br>use of results<br>not specified<br><br>1½ hours |



| Outline                                                                                                                                                                          | TOWER                                                                                                                                                                                                      | Valpar                                                                                                                                                                                                                           | Singer                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Administration<br>a. Procedures<br>b. Method of Instruction Giving<br>c. Separation of Learning/Performance<br>d. Providing Assistance to Client<br>e. Repeating Work Samples | some specified in detail, except layout<br>written and demonstration<br>not specified<br>not specified<br>encouraged for upgrading                                                                         | specified in detail<br>oral and demonstrations; some reading<br>none<br>not specified<br>encouraged                                                                                                                              | specified in detail<br>audiovisual<br>little<br>checkpoints built in<br>at request of client                                                                                                                             |
| 6. Scoring and Norms<br>a. Timing<br>b. Timing Interval<br>c. Time Norms<br>d. Error Scoring<br>e. Scoring Aids<br>f. Quality Norms<br>g. Emphasis in Scoring                    | evaluator times client from end of instructions to completion of task<br>rated on 5 point scale<br>compared to standards<br>extensive use<br>rated on 5 point scale<br>time and quality given equal weight | evaluator times client from end of instruction to completion of task<br>actual time recorded<br>some scored separately; others combined with time scores<br>some use<br>separate norms<br>weighed combination of time and errors | evaluator times client varies with each work sample<br>based on number of minutes to completion<br>compared to criteria<br>some use<br>5 point scale or subtracted from time score<br>time and errors given equal weight |
| 7. Observation of Clients<br>a. Work Performance<br>b. Work Behaviors<br>c. Recording System<br>d. Frequency of Observation                                                      | only one factor defined<br>a few listed in final report<br>5 point rating scale<br>not specified; frequent observations assumed                                                                            | no factors defined<br>17 factors defined<br>5 point rating scale<br>not specified                                                                                                                                                | 20 factors defined<br>none listed<br>none used for behaviors-records actual observation<br>not specified                                                                                                                 |
| 8. Reporting<br>a. Forms<br>b. Final Report Format                                                                                                                               | standardized form for all phases<br>narrative report using standardized outline and ratings                                                                                                                | separate form for each work sample<br>none used; independent work samples                                                                                                                                                        | standardized forms for all phases<br>no format given; includes description of contents                                                                                                                                   |

| VIEWS                                                                                                                                                                                                                                          | VITAS                                                                                                                                                                                                                  | Brodhead-Garrett                                                                                                                                                                                                           | WREST                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>specified in detail</p> <p>oral &amp; modeling, flexibility to use a variety of techniques stressed</p> <p>almost total; well established criteria</p> <p>little assistance after timing begins</p> <p>repeated if considered necessary</p> | <p>specified in detail</p> <p>oral &amp; demonstration</p> <p>no separation</p> <p>minimum assistance</p> <p>not recommended</p>                                                                                       | <p>not specified</p> <p>oral &amp; demonstration</p> <p>some</p> <p>not specified</p> <p>permitted to correct excessive errors</p>                                                                                         | <p>specified in detail; can be group administered</p> <p>oral &amp; demonstration</p> <p>considerable</p> <p>none given after timing starts</p> <p>encouraged for upgrading</p>                                                                          |
| <p>evaluator times client after task is learned to completion</p> <p>rated on 3 point scale; also MODAPTS</p> <p>compared to standards</p> <p>some use</p> <p>rated on 3 point scale</p> <p>time and errors given equal weight</p>             | <p>evaluator times client after instructions until task completed</p> <p>rated on 3 point scale</p> <p>compared to standards</p> <p>no use</p> <p>rated on 3 point scale</p> <p>time and errors given equal weight</p> | <p>evaluator times client from end of practice to completion of task</p> <p>reported on 3 point scale</p> <p>not specified</p> <p>not used</p> <p>no separate quality norms</p> <p>time and quality given equal weight</p> | <p>evaluator times client from end of instructions for a specified period of time</p> <p>time to completion; compared to scaled scores</p> <p>compared to standards</p> <p>not used</p> <p>all errors totaled for a single quality score</p> <p>time</p> |
| <p>10 factors defined</p> <p>clearly defined</p> <p>specific behaviors reported</p> <p>extensive</p>                                                                                                                                           | <p>9 factors defined</p> <p>several general factors defined</p> <p>specific behaviors reported</p> <p>almost constant observation stressed</p>                                                                         | <p>no factors defined</p> <p>36 defined</p> <p>5 point scale</p> <p>not specified</p>                                                                                                                                      | <p>no factors defined</p> <p>10 defined in general terms</p> <p>scale from 1 to 18</p> <p>not specified</p>                                                                                                                                              |
| <p>standardized forms for all phases</p> <p>standard format containing behavior data and recommended Worker Trait Groups</p>                                                                                                                   | <p>standardized forms used for all phases</p> <p>standardized format; stresses Worker Trait Groups</p>                                                                                                                 | <p>standardized forms for recording scores and work behaviors</p> <p>2 page final report, topic headings</p>                                                                                                               | <p>standardized form for recording performance</p> <p>numerous examples given in manual</p>                                                                                                                                                              |

| Outline                       | TOWER                                 | Valpar                             | Singer                                |
|-------------------------------|---------------------------------------|------------------------------------|---------------------------------------|
| 9 Utility                     |                                       |                                    |                                       |
| a. Vocational Exploration     | exposure to a variety of work areas   | limited use                        | extensive information given to client |
| b. Vocational Recommendations | limited to jobs related to work areas | depends upon use in facility       | dependent upon user                   |
| c. Counselor Utilization      | orientated toward counselor           | cannot be specified                | dependent upon user                   |
| 10. Training in the System    |                                       |                                    |                                       |
| a. Training Required          | yes                                   | no                                 | no                                    |
| b. Training Available         | yes                                   | yes                                | yes                                   |
| c. Duration                   | 3 weeks                               | as needed                          | 2 day, 1 or 2 week                    |
| d. Follow-up                  | no                                    | as needed                          | available                             |
| 11. Technical Considerations  |                                       |                                    |                                       |
| a. Norm Base                  | clients                               | 6 different norm groups; MTM norms | clients, employed workers, MTM        |
| b. Reliability                | no data available                     | data available; cannot be assessed | test-retest .61 and .71               |
| c. Validity                   | equivocal results                     | no data available                  | mostly content                        |

| VIEWS                                                                              | VITAS                                                                                 | Brodhead-Garrett                                                       | WREST                                                                                                                                                                                  |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| little use to client<br>related to DOT<br>oriented toward counselor                | little use to client<br>related to DOT &<br>supportive services<br>aimed at counselor | extensive, especially with<br>Phase II<br>by job area<br>not specified | limited use<br>not specified<br>not specified                                                                                                                                          |
| yes<br>yes<br>1 week<br>yes                                                        | yes<br>yes<br>1 week<br>yes                                                           | none<br>yes<br>2 days to 1 week<br>as needed                           | none<br>none<br>not applicable<br>not applicable                                                                                                                                       |
| 452 mentally retarded<br>MODAPTS<br><br>no data available<br><br>no data available | 600 CETA clients<br><br>no data available<br><br>no data available                    | no data available<br><br>no data available<br><br>no data available    | 3 major groups;<br>characteristics well<br>defined<br><br>test-retest coefficients in<br>.80's and .90's<br><br>correlations between<br>scores and supervisor's<br>ratings .86 and .93 |



## Appendix B

### *Suggested Guidelines for Evaluating Work Samples*

Work Sample (w.s.) Title: \_\_\_\_\_

Purpose for which w.s. is being reviewed: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### Item

#### Rating

##### Yes

##### No

#### 1. APPROPRIATENESS TO CLIENT POPULATION

- |                                                                             |     |     |
|-----------------------------------------------------------------------------|-----|-----|
| a. Prerequisites realistic in view of client abilities                      | ( ) | ( ) |
| b. Job areas assessed realistic in view of client abilities                 | ( ) | ( ) |
| c. Instructional mode realistic or could be adapted to fit client abilities | ( ) | ( ) |
| d. Instructional mode parallels that used in industry                       | ( ) | ( ) |

#### 2. WORK SAMPLE PURPOSE

- |                                                         |     |     |
|---------------------------------------------------------|-----|-----|
| a. Purpose (s) clearly stated and defined               | ( ) | ( ) |
| b. Purpose (s) appropriate to program goals             | ( ) | ( ) |
| c. Purpose does not duplicate existing w.s.             | ( ) | ( ) |
| d. Purpose does not duplicate other assessment tools    | ( ) | ( ) |
| e. Compliments existing w.s. and other assessment tools | ( ) | ( ) |

Source: Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751. *Suggested Guidelines for Evaluating Work Samples*, 1980.

ItemRatingYesNo

## 3. RELATIONSHIP TO AVAILABLE LABOR/TRAINING MARKET

- |                                                                           |     |     |
|---------------------------------------------------------------------------|-----|-----|
| a. Directly related to actual jobs in available labor market              | ( ) | ( ) |
| b. Directly related to actual training programs in available labor market | ( ) | ( ) |
| c. Extent of representativeness/validity documented                       | ( ) | ( ) |
| d. Job analysis or similar information available                          | ( ) | ( ) |
| e. Face validity apparent                                                 | ( ) | ( ) |

## 4. ORIENTATION

- |                                                                              |     |     |
|------------------------------------------------------------------------------|-----|-----|
| a. Standardized orientation present                                          | ( ) | ( ) |
| b. Orientation is job related and understandable to clients                  | ( ) | ( ) |
| c. Sufficient amount of information to relate w.s. to available labor market | ( ) | ( ) |

## 5. ADMINISTRATION

- |                                                                                            |     |     |
|--------------------------------------------------------------------------------------------|-----|-----|
| a. Instructions to evaluator standardized and understandable                               | ( ) | ( ) |
| b. Instructions to client standardized and understandable                                  | ( ) | ( ) |
| c. Materials used clearly described                                                        | ( ) | ( ) |
| d. Equipment used clearly described                                                        | ( ) | ( ) |
| e. Layout, setup and breakdown, and construction clearly described                         | ( ) | ( ) |
| f. Diagrams understandable and comparable to those used in industry                        | ( ) | ( ) |
| g. Safety precautions described                                                            | ( ) | ( ) |
| h. Time necessary for evaluator to administer and score is realistic for program           | ( ) | ( ) |
| i. Time necessary for average client to complete w.s. is realistic for program: _____ min. | ( ) | ( ) |
| j. Per administration costs described \$_____                                              | ( ) | ( ) |
| k. Purchase/development costs described \$_____                                            | ( ) | ( ) |

## 6. SCORING

- |                                                          |     |     |
|----------------------------------------------------------|-----|-----|
| a. Timing factors thoroughly described                   | ( ) | ( ) |
| b. Quality/error factors thoroughly described            | ( ) | ( ) |
| c. Competitive or industrial norms available and defined | ( ) | ( ) |

Item

Rating

Yes

No

d. Behavior rating factors thoroughly described

( ) ( )

7. LEARNING ASSESSMENT

a. Mastery criteria for learning phase provided

( ) ( )

b. Mastery criteria realistic in terms of ensuring adequate client  
learning precedes performance testing

( ) ( )

TOTAL

( ) ( )

8. SUMMARY COMMENTS (rationale for selecting/rejecting w.s.)

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## Appendix C

### THE MOBILE UNIT FOR VOCATIONAL EVALUATION

*Tenth grade special students in 15 Baltimore County high schools have the opportunity to find out what their occupational potential is. A mobile van travels from school to school spending a one week period testing and evaluating students. Parents, teachers, and counselors share results and come to a better understanding of the student's potential in the work world.*

The Mobile Unit for Vocational Evaluation assesses the employment potential of over 150 mildly mentally limited students enrolled in special education classes throughout Baltimore County, Maryland. The 48 foot long van visits 15 comprehensive high schools, with special education programs, scattered across the 607 square mile area surrounding the city of Baltimore. The Mobile Unit primarily serves 10th grade special education students, although it also visits junior high schools and schools for the severely mentally limited and orthopedically handicapped when needed.

The Mobile unit demonstration project is intended to provide more specific direction for educators in individualizing pupil instruction in the classroom, facilitating pupil placement in school and community work training programs, and reducing the drop out rate of 16 year old students who may leave school for economic and other reasons. By uncovering abilities not apparent in the classroom setting, the Mobile Unit for Vocational Evaluation attempts to provide the teacher with realistic appraisals of the work potential of students while encouraging youngsters to explore job possibilities or training which can lead to satisfactory work placement.

The Mobile Unit assesses a student's abilities, aptitudes, and limitations by exposing him to a simulated work environment contained in the van. Evaluation of student employment potential is based on psychometric tests, work samples, and observation of work behavior. Psychometric tests assess eye-hand coordination, manual dexterity, mechanical ability, form perception, and areas of vocational interest. Work samples include a set of instructions for a task and enable the student to demonstrate his ability to perform certain skills. Each work sample reveals work traits or sets of skills required to perform actual jobs in the community. Student performance is rated on the basis of established norms for workers in the competitive labor market. Observation of behavior includes both an anecdotal and formal assessment by a trained vocational evaluator and

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Source: Council for Exceptional Children, Reston, VA 22091. *Career Education: Exemplary Programs for the Handicapped*, n.d. This project was supported, in part, by a grant from the Bureau of Education for the Handicapped, U.S. Office of Education, Department of Health, Education, and Welfare. The original report was prepared by Abt Associates, Inc.



his aide to determine the level to which a student can organize and complete a work sample, can get along with other students in the simulated work environment, and can follow directions.

The Unit's vocational evaluator and aide prepare a report on each student's performance during his one week attendance in the trailer by evaluating work and providing a functional analysis of vocational potential.

The evaluation report may include social, medical, and/or psychological recommendations which alert the professional community to a student's special needs. In addition, the report identifies for the student his or her areas of vocational potential, emphasizing perhaps for the first time the positive aspects of each student as a valuable individual.

Mobile Unit activities are coordinated with a series of ancillary programs in Baltimore County, such as the Community Centered Work Experience Program, in a system of comprehensive services for evaluating, rehabilitating, training, and counseling each special education student for a productive adult life.

The concept of a mobile vocational evaluation facility was formulated in 1967 in response to the need for early intervention programs for the handicapped in schools scattered over Baltimore County's large geographical area. Early in 1966, representatives for the Maryland State Department of Education, the Baltimore County Board of Education, and the Board's Division of Vocational Rehabilitation established a committee chaired by the Supervisor of Special Education. This committee studied the procedures and equipment required to conduct vocational evaluation, the medical, biographical, and psychological data needed; and staff qualifications for such a project. While exploring avenues for funding, committee members visited existing facilities, explored evaluation centers across the eastern United States, and determined the types of facilities and level of financial support required to establish the mobile concept.

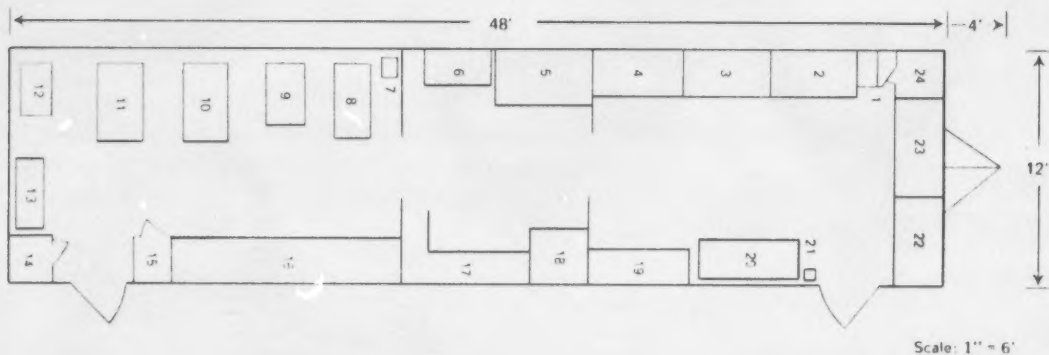
Following funding in 1970 under the Vocational Education Act, a plan was implemented to introduce the Mobile Unit concept to the County before operations began in October of that year. Working with administrators in the Baltimore County Board of Education, the Board's office of special education staff held a countywide meeting for all special education teachers, department heads, school principals, counselors, and other interested educators. Faculty meetings and parent and student orientations were also held at the County's 15 area high schools to promote the concept. Each year, school administrators participate in developing and organizing the travel schedule for the Mobile Unit. Working as a cooperative team with the staff of the Mobile Unit, administrators assist in planning the arrival and departure dates of the van at each school.

The Mobile Unit's operating budget for the 1972-73 year was \$60,000. Vocational Rehabilitation Act funds administered through HEW's Social and Rehabilitation Service represent about 22 percent of the total; the remaining 78 percent was provided by the Baltimore County Board of Education. By 1973-74, the Mobile Unit and staff would be totally supported by county funds. Average cost per student was \$250, excluding the value of in-kind contributions.

One of four mobile units currently serving the handicapped across the state, the Baltimore County Mobile Unit moves on a rotating basis to 15 high schools. The van's movement through the county alternates each year (east to west and west to east) to accommodate school preferences for the van's visit later in the year when students are more likely to be adjusted to the high school and classroom setting. Since the evaluation

process usually takes 5 full school days, the number of weeks the van spends at each school depends on the number of students in each special education class. The unit can accommodate from five to seven students for each week long evaluation.

The Mobile Unit contains facilities offering work samples in the two most common entry level occupational areas. A clerical and business area has typewriters, adding machines, calculators, cash registers, and other business machines. A second area houses shop equipment, including electronic, metal, and woodworking machines, an industrial sewing machine, a gas pump, and a variety of hand and power tools. The third compartment, relatively small, serves as office space for the evaluator and evaluator aide. Located in the center of the trailer, this compartment also acts as an insulator for noise between the business and shop activities. Figure 1 is a floor plan of the Mobile Unit.



#### DESCRIPTION OF INTERIOR

- |                                            |                                          |
|--------------------------------------------|------------------------------------------|
| 1. File Cabinet                            | 13. Industrial Sewing Machine            |
| 2. Carrel                                  | 14. Storage - Raw Materials              |
| 3. Carrel                                  | 15. Storage - Cleaning Materials         |
| 4. Carrel                                  | 16. Work Surface - Electronics, Plumbing |
| 5. Desk for Evaluator Aide                 | 17. Evaluator's Desk                     |
| 6. Duplicating Machine and Supply Cabinet  | 18. Table                                |
| 7. Gasoline Pump                           | 19. Work Surface - Filing, Cash Register |
| 8. 6 Cylinder Automobile Engine            | 20. Work Table                           |
| 9. Drill Press & Table, Supplies           | 21. Time Clock                           |
| 10. Work Bench - Fixed Position            | 22. Storage - Testing Supplies           |
| 11. Work Bench - Adjustable Height (Hi/Lo) | 23. Work Surface - Mail Sorting          |
| 12. Radial Arm Saw                         | 24. Clothes Closet                       |

Storage cabinets above and below items 2, 3, 4, 5, 6, 12, 17, 18. Visual aid panel above items 20, 23. Tool racks above items 8, 9, 10, 11.

Figure 1. FLOOR PLAN OF MOBILE UNIT FOR VOCATIONAL EVALUATION

One week before the van arrives, the assistant project director visits the school to discuss the evaluation process with the special education teacher, the principal, and the guidance counselor. Each special education student is reviewed within the context of past performance and the information in the school record. The assistant project director then meets with students in the special class to introduce them to the Mobile Unit and to explain the purpose of vocational evaluation and how it will affect them.

Before the Unit arrives, the evaluator aide administers a number of group tests to the students in their classroom, including basic arithmetic, measuring, lettering, the Picture Interest Inventory, and the individually administered Purdue Pegboard Test. Such tests help the evaluators assess the students' basic ability to handle numerical and verbal concepts. Students are also asked to complete a trial job application and a checklist of work samples or vocational 'tryouts' that interest them, and they list the classes in which they are already enrolled. This information is ready for the evaluator when the van arrives.

When the Mobile Unit arrives, students visit the van, explore its contents, and meet the staff. After an orientation period and individual interviews, each student is exposed to a series of work samples under the guidance and careful observation of the evaluation team. Individual standardized tests are also administered at appropriate intervals.

The work sample is basically a set of instructions outlining the steps necessary to complete a task or some portion of a job related task, for example, reproducing a type-written page. The work samples are accompanied by oral instructions from the evaluators to guide students with low level reading abilities. Work samples are available in the following areas:

Assembly work

- Sorting and stapling
- Nut, washer, and bolt assembly

Clerical work

- Adding machine
- Calculator
- Cash register
- Checking and coding
- Duplicator

Filing: alphabetical, chronological, and code

Mail Clerk: departmental, zip, folding, inserting, opening, dating, sealing, and postal scale

- Sales book
- Stock clerk
- Typing

Shop work

- Drill press
- Pattern layout, use of power machinery

Electronics

- Assembly, sorting resistors, sorting wires, code identification, cable harness, inspection, soldering, use of test meter

Electrician's helper

- Rat tail splice, basic wiring

Power sewing

#### Mechanical work

- Lock
- Lawn mower assembly
- 6-Cylinder motor (automobile)
- Gapping spark plugs
- Use of manual

#### Structural trades bricklaying

- Carpentry: sanding block, tie rack, bird house, wall shelf

#### Service work

- Custodial
- Food service: table setting, stacking dishes, measuring solids and liquids, following a recipe
- Nurse's aide: use of a thermometer, taking a pulse, use of patient chart, interest questionnaire
- Cosmetology: use of rollers, brush, comb, styling hair
- Waiter/waitress
- Service station attendant

Most work samples are based on a modification of the Testing Orientation and Work Evaluation in Rehabilitation (TOWER) system published by the Institute for the Crippled and Disabled, New York. The evaluator uses the basic TOWER rating scale and format to structure the various work samples. As individual tasks are gradually increased in complexity, the evaluator and evaluator aide can observe how completely students perform a task, how far they can progress in task complexity, and how well they function under a variety of conditions as they move toward their maximum level of ability.

The evaluator and aide work as a team in observing behaviors, administering tests, and ensuring that each student gets a maximum of individual attention while working in the Mobile Unit. The small number of students involved during each evaluation process makes individual attention and encouragement possible. The evaluator is responsible for administering individual tests in the Unit and for recording behavioral observations. Anecdotal comments, analysis of work sample performance and test results are typically used to document student performance. The evaluator aide assists in observing behaviors and is primarily responsible for supervising students as they experiment with various samples. What follows is a description of a typical week in the Mobile Unit:

**Day One.** The evaluator introduces each work sample, presents a tool safety film, and interviews each student to learn more about his background and interests, and to establish rapport. He also administers individual tests including the Bennett Hand Tool Dexterity Test and a Tool Knowledge Inventory. While interviews and tests are being conducted, the evaluator aide has students begin work samples of their choice. First day exposure to work samples is purely exploratory.

**Day Two.** Students continue with the work samples they were doing at the end of the first day. The evaluator may also complete individual testing begun the first day.

**Day Three.** The evaluator administers the Revised Beta Exam (IQ Test) and the Crawford Small Parts Dexterity Test to each student, while the aide continues to work with students on individual work samples.



Day Four. All students work with individual work samples as the evaluator and aide supervise and observe behavior.

Day Five. Students complete their experiments with the various work samples while the evaluator holds an individual simulated job interview with each youngster. The interview is followed by a "feedback discussion" dealing with what the evaluators identify as the student's occupational strengths.

By the end of the second or third day in the Mobile Unit, each student has been exposed to a variety of work samples or occupational activities. Throughout the week, students are encouraged to explore many samples and not to focus exclusively on those with which they feel most comfortable or can do best. By the fourth or fifth day, each student has usually begun to concentrate in his area of interest and has progressed to the maximum level of complexity at which he can perform.

On the basis of results from the psychometric tests, work samples, and behavioral observations, the evaluator, in consultation with the aide, prepares a report on each student focusing on behaviors and including background information, a review of work sample performance and a summary of recommendations for each student.

About two weeks after the van leaves, a Call Back Meeting is arranged to review the reports and discuss programming recommendations. The vocational evaluator meets with the teacher, guidance counselor, nurse, school vice principal, vocational rehabilitation counselor, job development coordinators, job placement counselors, the special education supervisor, and the assistant project director. Each student's ability to analyze, and reason, his cooperation, attention span, enthusiasm, dependability, maturity, punctuality, thoroughness, and attitude is discussed by this team. The evaluator suggests the type of vocational opportunities (based on a Dictionary of Occupational Titles) that may be appropriate for each student's potential.

Copies of the report are submitted to the job development coordinator, the pupil personnel worker, the school, the DVR counselor, and the office of special education. Within the school setting, the teacher, the guidance counselor, or whoever has regular contact with the student's family, may discuss the report with parents, advising them of their child's potential and what educational plans are being formulated to help the student achieve independence.

A notable feature of the Mobile Unit is its role as a facilitator in coordinating and improving services for special education and handicapped students. One of the goals of the Mobile Unit is to assist the school in preparing curriculum geared to the needs of each individual and to help teachers and counselors secure appropriate inschool work experiences for students. Special education students, while enrolled in regular homerooms, may receive instruction in four special curriculum areas: vocational English, focusing on job related vocabulary and reading skills; consumer math, for mathematic skills required to perform practical transactions; citizenship, which includes everything from building social competencies to current events; and occupational training which includes job development and the acquisition of social skills necessary to perform well on the job.

Based on the Mobile Unit's assessment of student abilities and limitations, the special education teacher can work more closely with the industrial arts teacher and other school personnel who deal with the student. Identification of the student's abilities also increases his chances of being integrated into regular classes such as basic math, reading, and other elective subjects. However, it is in the area of career development that

vocational evaluation has its greatest impact. With the knowledge of each student's strengths and weaknesses, the special education teacher can begin to develop individualized instruction based on occupational needs and can focus on appropriate aspects of occupational training—job preparation, social skills, and job interviews.

The Mobile Unit serves as a facilitator in bringing together the services of several programs for special education and handicapped students in Baltimore County. Because the Unit provides diagnostic information on a student's potential, it is possible to hasten placement in programs outside the regular school while the student concurrently works toward graduation. The evaluation process typically makes possible more successful placement in the Community Centered Work Experience Program; more direction in placing a student in one of Baltimore County's three vocational tech centers or the Turner Occupational Center for further vocational training; early intervention on the part of the DVR counselor who, because of the Unit's evaluation, can secure DVR services for students in the 10th grade and provide systematic follow-up beyond graduation, more realistic information for parents, teachers, and counselors to help develop a student's potential in a vocational area in which he is most likely to succeed.

The linkages between the Mobile Unit and the Community Centered Work Experience Program are described here to illustrate the project's cooperative role in providing comprehensive services to special education students. The Community Centered Work Experience Program provides an opportunity for students, as part of their school curriculum, to participate as work trainees in realistic job positions in their communities. Previously, a student was enrolled in the community program only after he had served successfully in various inschool work experience programs. Because the Mobile Unit is now able to provide the job development coordinators and teachers with more accurate assessment data, the student may be deemed ready either for immediate community work experience or the inschool work experience.

Using information made available by the project, the two county job development coordinators can now also offer several job placement alternatives for each special education student. Although the coordinators lead this effort, the Mobile Unit evaluation also assists school counselors, vocational rehabilitation counselors, and special education teachers in placing students in appropriate skills training or work experience to maximize their potential.

The Mobile Unit for Vocational Evaluation offers diagnostic services to Baltimore County 10th grade students in 15 special education classes for the intellectually limited and to the severely limited or orthopedically handicapped who are occasionally in need of this service. The state standard for classification as "intellectually limited" is an IQ range of from 50 through 79. However, students placed in some special education classes may also have emotional and/or physical problems which result in learning difficulties. An average high school special education class has 15 students.

All 10th grade students enrolled in the special education program are candidates for the Mobile Unit evaluation. During 1972-73, the staff expect to serve more than 150 students in these classes throughout the county. Rosters of potential students for evaluation are compiled on the basis of junior high class lists submitted prior to van scheduling early in the fall. Most students evaluated in the current academic year have been participating in special education classes since the primary grades.

Once students have undergone vocational evaluation, the resulting report facilitates several avenues for further development. On the basis of the report, a student might be recommended for further training in his local school, further skills training in

one of the vocational technical centers, participation in the Community Centered Work Experience Program, or the services of Vocational Rehabilitation.

In addition to the project director, the Mobil Unit is staffed by an assistant project director, a vocational director, a vocational evaluator, an evaluator aide, and a fulltime secretary. All staff are hired by the Baltimore County Board of Education. The project director, who is employed by the county as a supervisor of special education, supervises van activities and coordinates these activities with other programs. Since the Unit is part of the office of special education, the director is able to work closely with other county and state special education personnel. In addition, he establishes liaison with the two county job development coordinators who assist in placing students on the job following their vocational evaluation.

The assistant project director is responsible for the day to day operations of the Unit and supervision of Unit staff, working in close coordination, counselors from the Division of Vocational Rehabilitation, school counselors and associated teaching and administrative staff at each of the participating schools. He acts as a public relations coordinator with community agencies and as advisor to the people or groups interested in initiating vocational evaluation programs.

Evaluators must be certified by the Maryland State Board of Education. The present Mobile Unit evaluator was formerly a counselor with the State Division of Vocational Rehabilitation; the evaluator aide was recruited from industry. Both received extensive training arranged by the Baltimore County office of special education in conjunction with the State Department of Education. The following types of pre and inservice training are required of evaluators and available to other special education staff:

Coppin College, Summer, 1970, was the site of 6 weeks of training for all evaluators in the State of Maryland. The training, sponsored by the Department of Vocational Education with cooperation from the Division of Vocational Rehabilitation, focused on vocational evaluation techniques.

The Maryland Evaluator Association holds two meetings each year for evaluators to discuss techniques and make presentations on evaluation and vocational education projects.

The University of Maryland, Summer, 1971 and 1972, was the site of one week of presentations by leading authorities on current evaluation methods. The workshop was attended by evaluators and evaluator aides throughout the state.

A summer, 1972, workshop involved more than 15 special education teachers, on a stipend from the Division of Vocational Technical Education, who participated in work experiences identical to those to which students are assigned. Teachers were placed in industry, food services, hospitals, machine shops, and retail outlets for 3 weeks. On a rotating basis, teachers experienced five different occupations and then wrote job descriptions based on their observations of what was required for each occupation.

Conferences are held every year for counselors throughout the state who are involved in various aspects of the evaluation and placement of special education students. Counselors are advised on new methods for developing individualized learning programs for students.



In addition to these opportunities, teachers, counselors, evaluators, and administrators meet to share information on ways to develop new and innovative approaches for serving children with special education needs. The Mobile Unit staff has visited several training institutions for evaluators and schools for teachers of children with special needs.

The Mobile Unit's contact with parents include the initial orientation to the evaluation facility and the post evaluation conference with teacher, evaluator, and other staff. Parents may also be involved in the school activities of their children through PTA conferences held four times a year. For the most part, each teacher supervising a classroom of special education students takes the responsibility for providing parents with an opportunity to discuss their child's progress. The Mobile Unit's greatest service to parents is felt to be its role in providing them with a realistic assessment of their child's employment potential.

The Mobile Unit for Vocational Evaluation has received tremendous support from various agencies and businesses throughout Baltimore County. In addition to special education materials provided by the County Board of Education, the Unit has received hardware from businesses, including gas pumps, office equipment, and shop equipment, all of which broaden the number of occupational hands-on experiences students are exposed to in the trailer.

The Mobile Unit staff also makes referrals for further evaluation or training to many cooperating community agencies, including:

Sinai Hospital Rehabilitation Unit, which offers further diagnostic services and treatment to those with special handicapping conditions.

Baltimore League for Crippled Children and Adults, which offers sheltered workshops, diagnostic, treatment, therapy, and adjustive services.

Maryland Association for the Retarded, which offers diagnostic and training services to the retarded.

Baltimore Goodwill Industries, with vocational rehabilitation services and job training for the handicapped.

Maryland Workshop for the Blind, which offers comprehensive services to the blind.

Maryland Comprehensive Rehabilitation Center (DVR), with comprehensive diagnostic, treatment, and training services for the handicapped.

Turner Occupation Center, which has work adjustment and personal adjustment training for the mildly mentally retarded.

Western Vocational Technical Center, which offers a career lab for job exploration and vocational training and placement.

Eastern Vocational High School, which has occupational exploration and training programs.

The Mobile Unit for Vocational Evaluation is in the process of compiling follow-up data on all the graduates from Baltimore County high schools who have participated in



the evaluation since 1970. The follow-up results are available at this time. The Unit has also used some informal evaluation procedures to measure its level of success in serving youngsters with special needs. Findings are described in the following paragraphs.

Guidance counselors at each of the 15 high schools have reported significant changes in terms of more individualized instruction for students, greater student participation in regular classrooms, and increased integration of special education students into total school activities.

Administrators, special education teachers, and industrial arts teachers have all stated that the evaluation data have increased the level of participation of special education students in the in-school work experience program and in the industrial arts program. In addition, the evaluation information has increased the level of communication and cooperative planning among these educators.

The job development coordinators have stated that the project's evaluation information has increased their success in placing special education students in community centered work situations satisfactory to both employer and student. Employers have indicated that students who participated in vocational evaluation have tended to adjust better and to be more persistent in their work, and generally to have developed a more mature attitude toward work.

As a result of the Mobile Unit's evaluation and coordinating efforts, each student is followed up, counseled, and/or assisted by a DVR counselor, the school counselor, the teacher, and the job development coordinators. Former procedures tended to be sporadic and unsystematic. A long range follow-up on each student is now being administratively organized by the Mobile Unit staff, the school and DVR counselors, the job development coordinators, and staff in the Office of Special Education.

Before the project was initiated, DVR counselors did not usually register special education students until the 12th grade. Because the Mobile Unit evaluation enables the DVR counselor to identify each student's skills and interests (without the cost to DVR or private evaluation services), the counselor can now register all special education students in the 10th grade. The result has been early intervention in securing the services of DVR for special education services, more successful and earlier placement in training programs or jobs, a reduction in DVR evaluation costs, an increase in the amount of follow-up on each student, and a changing attitude on the part of parents and students in accepting DVR services.

In addition, school counselors and teachers have indicated that, in many cases, parents tend to take an increased interest in the child's progress in school and tend to be more persistent in encouraging the student to complete his formal school program once the evaluation team has gauged his potential.

Appendix D

## VOCATIONAL EVALUATION REFERRAL FORM

NAME David Thornhead DATE 6-8

ADDRESS 1218 Danger Avenue  
Menomonie, WI 54751

D.O.B. 2-1-63

GRADE LEVEL 12th Grade

DISABILITY/HANDICAP Learning Disabled

REASON FOR REFERRAL Development of IEP - Need to determine specific areas of interest and aptitude for potential vocational training - poor academic ability, poor social skills, poor personal appearance.

PERSON(S) MAKING REFERRAL David Jones

### REFERRAL INFORMATION

#### INTELLIGENCE TESTING

TEST USED WAIS DATE 4-22

SCORES V- 84 % ile  
P- 102 % ile  
FS- 91 % ile

SUBTEST SCALE SCORES  
INFO. 7 DIG. S. 7  
COMP. 4 PIC. C. 11  
ARITH 8 BLO. D. 14  
SIM. 8 PIC. AR 9  
D.S. 6 OBJ. A. 10  
VOC. 10

#### ACHIEVEMENT TESTING

TEST USED Wide Range Achievement Test DATE 5-29

SCORES Spell 3.3/2 % ile  
Arith 4.6/7 % ile  
Read 6.4/16 % ile

## **INTEREST TESTING**

TEST USED Wide Range Interest/Opinion Test DATE 4-24

### **SIGNIFICANT SCORES**

Mechanics - 75 %ile  
Outdoor - 77 %ile  
Machine Operation - 76 %ile  
Biological Sciences - 71 %ile

### **EXPRESSED INTERESTS**

|                 |           |                    |
|-----------------|-----------|--------------------|
| Autobody Repair | Carpentry | Machine Operations |
| Auto Mechanic   | Welding   | Driving Semi's     |

### **HOBBIES/LEISURE TIME ACTIVITIES**

Fishing  
Working with Cars

### **WORK/VOLUNTEER EXPERIENCE**

Has worked on Father's farm all his life - in the past one and one-half years, he has begun to work on auto engines, on a part-time basis.

### **MOTOR FUNCTIONING ASSESSMENT** (Based on Observation)

Appears to have no physical limitation - seems to be able to perform physical tasks with little or no difficulty.

### **MISCELLANEOUS INFORMATION** (I.E. SUMMARY OF TEACHER OBSERVATIONS, GRADES, SOCIAL HISTORY, ETC.)

1. Psychologist comments on WAIS ". . . currently functioning in average range of intellectual ability. Appears to have greater non-verbal skills than verbal . . . has some difficulty with visual, sequential memory . . . relative weakness is (in) ability to learn new material . . . ability to see relationship expressed in two dimensional mode and to transform that into a three dimensional design is an area of relative strength." It was also noted that ". . . common sense reasoning tends to be an area of weakness in his verbal skills."
2. ". . . loss of tip of finger." (Left hand-index)
3. Teacher comments include ". . . appears to have 'chip on shoulder' attitude. Unconcerned about subjects that do not interest him."
4. School counselor notes "can be defiant toward authority figures. Will question directions at times."
5. "Poor personal hygiene and grooming."

## Appendix E

### INITIAL INTERVIEW

- I. Expectations and Self-knowledge:
  1. If you can, tell me why you have been brought for evaluation.
  2. What do you think might happen as a result of the evaluation?
  3. What would you like to happen?
- II. Attitudes towards handicap:
  1. Are you in a special education program?
  2. What program (s) ?
  3. Why are you in this program?
  4. How do you feel about this?
  5. How does your family/friends feel?
- III. Interests and Activities:
  1. What are your leisure time activities, hobbies, sports, etc.?
  2. Do you have jobs you do regularly at home?
  3. Is there any job you've thought you would like to do or be good at doing?
  4. Are there any jobs you are not interested in?
- IV. Occupational/Career Awareness:
  1. What are some ways a person can find a job?
  2. Name 3 types of jobs available at a supermarket (grocery store).
  3. Name as many other jobs as you can (up to 15).
  4. What are some things employers might look for when hiring someone for a job?
  5. What are some reasons a person might get fired from a job?
  6. Can you name a personal trait you have that will help you get a job (something about yourself that employers will like) ?
  7. Can you think of a habit or an attitude that you have that might make someone not want to hire you?
  8. Why do people work?

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Source: Education Service Center, San Antonio, Texas, *Final Report: Vocational Assessment for the Handicapped*, 1980.



9. What should you do if you're going to be late for or absent from work?

V. Working/Classroom Conditions:

1. What are the teachers like that you like best? What do they do?
2. What are the teachers like that you don't like? What do they do?
3. In class/on job, do you prefer working by yourself, with one other person, in a small group, in a large group?
4. If you had a job, would you rather sit most of the time or move about most of the time, or some of both?
5. Would you prefer working inside only, outside only, or both?
6. How do you feel about working where it is cold? Hot? Where the temperature changes? Where it is wet or humid? Where hazards exist?
7. DOT interest factors:

|                                     |                                        |
|-------------------------------------|----------------------------------------|
| (1a-1) Work with things             | (1b-6) Communication of data           |
| (2a-2) Business contact w/people    | (2b-7) Scientific/technical            |
| (3a-3) Routine, concrete, organized | (3b-8) Abstract, creative              |
| (4a-4) Helping people               | (4b-9) Processes, machines, techniques |
| (5a-5) Reward is prestige, money    | (5b-0) Reward is seeing result of work |
8. What kind of people would you not enjoy working with?

VI. Educational expectation/requirements:

1. Are there any courses in school that you would like to take?
2. Want to avoid?
3. Are you willing to enroll in a training program when you finish school in order to get a job?

VII. Functional Skills

1. Suppose you are earning a monthly paycheck. You wish to make a budget of monthly expenses so you can spend your money more carefully. What are some things you *have* to spend your money on every month?
2. What else might you have to use your money for during the year?
3. How much money do you think it costs to feed two adults for one week, if all meals are cooked at home?
4. How much do you think it costs to rent a two bedroom house/apartment for one month?
5. Can you use a telephone? How to dial information? Emergency #?
6. What are the four types of foods necessary to a balanced diet?
7. Do you miss much school? Why?
8. If you had a job, how would you get to work?

9. What would you do with your paycheck? (cash it, bank it, etc.)

## Appendix F<sup>1</sup>

### *An Example of a Well-Planned and Documented Referral to an Evaluation Unit from a Field Counselor*

#### Referral Information Sheet<sup>2</sup>

##### 1. Counseling Information:

Problems of client that affect trainability and/or employability.

##### A. Medical and Psychiatric:

1. Psychological problems seem to have been resolved. Recommendation is to proceed with vocational planning.
2. Limitations: In use of hands, has difficulty with fine movements. In use of legs, can walk and stand equipped with short leg braces.

##### B. Social:

1. Family: It is a positive influence, cooperative, and will help in whatever way it can.

##### C. Psychological:

1. Motivation: Good, positive. He wants to determine a vocational objective and train for it.
2. Personality: (see special reports).
3. Ability level: (see special reports).

##### D. Education:

1. Grade completed in school: 11th grade.
2. Subject in which he succeeded best: Shop courses and mechanical drawing.
3. See high school transcript.

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<sup>1</sup>Taken from Report No. 2, The Study Committee on Evaluation of Vocational Potential (1966), pp. 21-27.

<sup>2</sup>These materials were prepared and forwarded as initial referral information on a client by Mr. Joseph L. Finnerty, counselor, Division of Vocational Rehabilitation, Kansas, and were accompanied by a Medical Specialist's report, General Medical Report, Psychologists's report of examination, a Psychotherapist's report of contacts, and complete school transcript and records.

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Source: Materials Development Center, University of Wisconsin-Stout, Menomonie, WI 54751. *The Individual Evaluation Plan*, 1978.

E. Vocational:

1. Present status: Client is not working because he does not have a skill that he can use that is within his limitation.
2. Work History:

|                        |             |             |
|------------------------|-------------|-------------|
| Furniture stripping    | - 7 months  | - no salary |
| Painter's helper       | - 9 months  | - no salary |
| Filling station helper | - 12 months | - no salary |
3. Past Vocational Training:

|                    |           |                      |
|--------------------|-----------|----------------------|
| Woodworking        | - 3 years | - high school shop   |
| Mechanical drawing | - 1 year  | - high school course |
4. Vocational Goal (client's):

Radio - mechanical and communications  
Drafting
5. Vocational Goal (counselor's):

Possibly radio, photography, or something that would involve the client with people singly rather than groups.
6. Employment or placement opportunities most commonly available in client's area: Aircraft industry, small manufacturing, all services necessary in area of population of about 280,000.

2. Programming:

- A. What we would like to know about our client from Center evaluation:
  1. Medical and Psychiatric: (Adequate information at present).
  2. Social: How does he adjust to the new situation, individuals, and groups?
  3. Psychological: (adequate)
  4. Educationally: Client has average ability to learn. Does he apply his ability; will he follow through and master material that is assigned to him? Is limitation on writing a big obstacle?
- B. How might Center help client with special problems: This is client's first time away from home and he will need some special help at first. He will need one special, interested person to listen to him.
3. We would hope that the client could enter directly into training if a program can be established that would meet approval.
4. The client has a good general understanding of the Center's services, evaluation, vocational training, etc.

Plan would be for Vocational Rehabilitation to pay the Center costs.

The family would meet transportation, clothing, and personal needs of client.



## SOCIAL HISTORY

### I. Identifying Information

Name: \_\_\_\_\_ Address: \_\_\_\_\_

Age: 24                      Sex: Male                      Education: Completed 11th grade

### II. Reasons for Referral

Client would like to be admitted to Hot Springs Rehabilitation Center for vocational evaluation and possibly vocational training.

### III. Present Situation of Client

This 24 year old, white male has completed 11 years of public school education. His physical limitation, Friedreich's Ataxia, limits the full use of hands and lower extremities. He walks fairly well; he cannot accomplish fine movements with either hand. He last attended school at the age of 20; since that time he has not been gainfully employed but has been occupied in busy work type of thing.

At present, this young man is anxious to do something vocationally. He needs a job trial evaluation to determine what he can do.

### IV. Physical Characteristics

Client is 5 ft 9½ in. tall and weighs about 115 lbs. Although limited in the full use of hands and legs, he does quite well in performing most movements. The use of short leg brace enables him to walk and stand for considerable periods. He can perform gross movements of the hands and some of the finer movements. His body frame appears wiry and spare, and he probably has more strength than he appears to have. His vision is corrected to 20/20. He is neat and clean in appearance.

### V. Present Living Arrangements

Client is still living at home with his parents, father age 51, mother age 55. Since the client has never had any significant income, he received his support from the parents. They would be considered as part of the low-middle socio-economic group. They have tried to be helpful in handling client, having met with little success; they are concerned about his future. They are cooperative in working with vocational rehabilitation.

### VI. Family History

A. Father: \_\_\_\_\_, 51 years of age, is in good health. He has a high school education and has worked all his life in general contracting of construction and remodeling work. He is now self-employed. Attitude toward son: interested, desires to be helpful, and is asking for help and guidance.

B. Mother: \_\_\_\_\_, 55 years of age, is in good health. She has a high school education. Since marriage she has been a housewife and mother. She has assisted her husband as his business secretary at times. She is probably dominant parent and has been overprotective with client.

C. Siblings of Client:

1. Sister, 34 years of age, with 12th grade education. She worked as a sales girl for 10 years before marriage. Since marriage she has been a housewife and mother of three children. Her husband is a bookkeeper. They treat client like a child.
2. Sister, 33 years of age, with 12th grade education. She was married and has two children. She is divorced and supports herself and children through real estate sales work.
3. Sister, 31 years of age, has worked as a secretary. She married, divorced, and has one child. She remarried but was recently widowed. Her husband was an insurance salesman who died of a heart attack.

VII. *Client's History*

- A. Birth and development: (to approximately age 6). Client, the fourth of four children, has three older sisters. He was seven years younger than the next oldest child. His physical disability developed from the time of birth.
- B. Preadolescence: (6 to approximately 12). These, no doubt, were difficult years for client. He was shifted about in schools. A speech problem seems to have developed. Evidently emotional problems were present. There seems to have been little or no meaningful relationships with parents, teachers, or peers. Client seems to have resented being placed with the slower learning groups.
- C. Adolescence: (12 to 20 approximately). During this period client seems to have tried to make an adjustment to his situation of being the oldest child in group of class. He formed some friendships at school, both boys and girls. He was active in a church group, and liked singing and summer camp. He and his father worked at hobbies, woodwork, and photography. It seems that he was overprotected by his mother at home and became resentful.

VIII. *Academic and Vocational Training*

Client started to public grade school at age of five years. He completed three years and at that time was placed in the "sunshine room" (special education) for one year. This placement was made because of speech problem and lack of progress.

At age of ten was placed in the \_\_\_\_\_ school (school for retarded). He attended there for four years. He resented this school because he felt that he didn't belong there.

At age of 14 he was placed again in public school at the sixth grade level. He was older and larger than the other children and felt out of place but did seem to make a satisfactory adjustment. He went ahead to complete junior high school; he entered senior high and completed the eleventh grade. He dropped out of school at this point because he was 21 years of age and to stay in school he would have had to pay tuition and other costs.

He says that he got mostly C's while in high school but B's in the three years of woodworking. He enjoyed school, liked shop courses and mechanical drawing best. He had both girl and boy friends during his school functions and activities.

School work was limited by his limited ability to write. At the present time client says that he can't read his own writing.

#### IX. *Work Experience*

After leaving school at the age of 21 years, client has occupied himself as indicated:

He worked in a family shop project reconditioning used furniture. He received no salary. Client stripped furniture for seven months.

He worked as a painter's helper for nine months, painting trucks. He was paid a very small amount.

He has put in most of his time at a friend's filling station. He says that he helped operate pumps, operated lift, lube and grease jobs, washed cars, some light tune-up work. He must have done these jobs to a very limited extent as he was sometimes paid \$1.00 per day. At other times he was given only his lunch.

#### X. *Medical History*

(See medical reports.)

Client was under the care of the family doctor during his early years.

He was referred to \_\_\_\_\_ Clinic doctors at the age of 12. He was equipped with leg braces. Corrective surgery was done on his feet. His condition is considered stabilized.

#### XI. *Information Not Given Elsewhere*

Client is a member of a Christian church, Disciples of Christ. He seems to be anxious to do something vocationally and is most anxious to form new social relationships, especially with girls. The lad seems to accept his physical limitations and has been cooperative in working through his emotional problems. He has taken drivers education courses and can drive a car, but he has never obtained a driver's license.

He and his parents have studied the literature available on the Hot Springs Rehabilitation Center. They understand the services of evaluation and vocational training and feel that this Center will meet client's need.

#### XII. *General Plan for Handling of Case*

1. Medical evaluation )
2. Psychological evaluation ) Completed
3. Need for psychotherapy pointed out and met.
4. Vocational evaluation:
  - a. Testing and past experience indicate interest in the general areas of: mechanical; outdoor; persuasive; scientific; and artistic.
  - b. Need is for a vocational evaluation based on job trial
5. Vocational training:

At same Center if training is available for the particular vocational objective.

6. Job placement:

Probably at home, ( \_\_\_\_\_ ), a city of 280,000, where there are openings for most skilled workers in areas of industry and services.

7. Later planning:

After satisfactory placement has been made, it is hoped that client would become self-sufficient and capable of moving out on his own.

/s/ Joseph L. Finnerty  
Vocational Rehabilitation Counselor



## INDIVIDUAL EVALUATION PLAN

Client: Don Joe Evaluator: S. Smith Evaluation Period: Beginning: 8/1/78  
Ending: 8/12/78

Review Dates: 8/4/78, 8/9/78, 8/12/78 Asterisk (\*) denotes a plan modification.

| Referral Questions to be Answered                                  | Assessment Techniques                                                     | Administration Dates | Persons Involved |
|--------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------|------------------|
| 1. How does he adjust to new situations, individuals and groups?   | 1A. Initial Interview                                                     | 1A. 8/1/78           | 1A. Smith        |
|                                                                    | 1B. Group Assembly W.S.                                                   | 1B. 8/2/78           | 1B. Smith        |
|                                                                    | 1C. Behavior Identification Format                                        | 1C. Continuous       | 1C. Smith        |
|                                                                    | 1D. 16 PF Form E                                                          | 1D. 8/1/78           | 1D. Jones        |
|                                                                    | 1E. Utilization of recreation time                                        | 1E. 8/3/,5, 8, 10/78 | 1E. Ray          |
|                                                                    | 1F. Career Awareness Class                                                | 1F. 8/3/78           | 1F. Smith        |
| 2. Does he apply his ability to learn? It is average.              | 2A. Following Written Instructions Exercise #1                            | 2A. 8/2/78           | 2A. Smith        |
|                                                                    | 2B. Problem Solving W.S.                                                  | 2B. 8/4/78           | 2B. Smith        |
|                                                                    | 2C. Automotive Mechanic Training W.S.                                     | 2C. 8/2/78           | 2C. Smith        |
|                                                                    | 2D. Plumber's Helper Training W.S.                                        | 2D. 8/3/78           | 2D. Smith        |
| 3. Does he follow through and master the material assigned to him? | 3A. Small Appliance Repair W.S.                                           | 3A. 8/5/78           | 3A. Smith        |
|                                                                    | 3B. Toggle Bolt Production Area                                           | 3B. 8/5/78           | 3B. Bern         |
|                                                                    | 3C. Job Exploration Kit                                                   | 3C. 8/1/78           | 3C. Smith        |
|                                                                    | 3D. Custodial Production Area                                             | 3D. 8/4/78           | 3D. Smith        |
|                                                                    | 3E. Percentage rating of number of completed tasks out of all assignments | 3E. Continuous       | 3E. Smith        |

| Referral Questions to be Answered                               | Assessment Techniques              | Administration Dates | Persons Involved |
|-----------------------------------------------------------------|------------------------------------|----------------------|------------------|
| 4. Is writing a big obstacle?                                   | 4A. ABLE Spelling Form A           | 4A. 8/1/78           | 4A. Smith        |
|                                                                 | 4B. Auto parts Salesman W.S.       | 4B. 8/3/78           | 4B. Smith        |
|                                                                 | 4C. Message Clerk Job Site         | 4C. 8/4/78           | 4C. Smith        |
| 5. What can he do best within his limitations?                  | 5A. DAT Mechanical Apt. Form A     | 5A. 8/1/78           | 5A. Smith        |
|                                                                 | 5B. DAT Space Relations Form A     | 5B. 8/1/78           | 5B. Smith        |
|                                                                 | 5C. Measurement Skills W.S.        | 5C. 8/3/78           | 5C. Smith        |
|                                                                 | 5D. Drafting W.S.                  | 5D. 8/8/78           | 5D. Smith        |
|                                                                 | 5E. Small Engine Tune-Up W.S.      | 5E. 8/8/78           | 5E. Smith        |
|                                                                 | 5F. Brake Repair W.S.              | 5F. 8/8/78           | 5F. Smith        |
|                                                                 | 5I. File Clerk W.S.                | 5I. 8/4/78           | 5I. Smith        |
|                                                                 | 5J. Radio Announcer W.S.           | 5J. 8/10/78          | 5J. Smith        |
|                                                                 | 5K. Range of Motion W.S.           | 5K. 8/5/78           | 5K. Smith        |
|                                                                 | 6A. Exit Interview                 | 6A. 8/12/78          | 6A. Smith        |
| 6. Is vocational training needed and where is it available?     |                                    |                      |                  |
|                                                                 |                                    |                      |                  |
|                                                                 |                                    |                      |                  |
| 7. What are his job seeking skills?                             | 7A. Fill out a job application     | 7A. 8/10/78          | 7A. Smith        |
|                                                                 | 7B. Role play a job interview      | 7B. 8/10/78          | 7B. Smith        |
|                                                                 | 7C. Job Search Activity #1         | 7C. 8/10/78          | 7C. Smith        |
| *8. Can he perform assembly tasks at or near competitive rates? | *8A. Crawford Small Parts          | 8A. 8/8/78           | 8A. Smith        |
|                                                                 | *8B. MRMT                          | 8B. 8/8/78           | 8B. Smith        |
|                                                                 | *8C. Stout U-Bolt Assembly W.S.    | 8C. 8/9/78           | 8C. Smith        |
|                                                                 | *8D. Punch Press Operator Job Site | 8D. 8/9/78           | 8D. Smith        |
|                                                                 | *8E. Lamp Shade Packaging Job Site | 8E. 8/11, 12/78      | 8E. Bern         |

We, the undersigned, understand our roles in carryout out this plan.

|                            |                      |
|----------------------------|----------------------|
| Evaluator Signature: _____ | Date: <u>7/27/78</u> |
| Client Signature: _____    | Date: <u>8/1/78</u>  |
| Signature: _____           | Date: <u>7/27/78</u> |
| Signature: _____           | Date: <u>7/27/78</u> |
| Signature: _____           | Date: <u>7/27/78</u> |

## Appendix G

### *VOCATIONAL EVALUATION FINAL REPORT*

NAME: \_\_\_\_\_ DATE: April 6, 1979  
CASE NUMBER: \_\_\_\_\_ EVALUATION PERIOD: 1/29/79-  
HOME SCHOOL: Okemos High School 3/23/79  
CODE: D-4, Attendance YEAR OF GRADUATION: 1981  
D-5, Academic Difficulty  
BIRTH DATE: 6/27/63 SOCIAL SECURITY NUMBER: \_\_\_\_\_  
FINAL PLACEMENT: Parts Control Program at the Capital Area Career Center  
REASON FOR PLACEMENT IN VOCATIONAL EVALUATION: To get the vocational training necessary to help her become an independent, functioning adult.  
REPORT PREPARED BY: Vocational Evaluation Staff at C.A.C.C.

#### *VOCATIONAL EVALUATION PROCESS*

The Vocational Evaluation Program is structured to assist the student in analyzing her interests, aptitudes, abilities and needs in order to make an appropriate vocational decision. The process involves self-exploration, job exploration, hands on work experiences, decision making and career planning. Standardized tests, work samples, situational assessments, group techniques 1: 1 vocational counseling and program try-outs are utilized to obtain useable information about participants. All assessment information is analyzed by the student, assisted by the evaluator, to plan a vocational program that takes advantage of the student's vocational potential.

\_\_\_\_\_ participated in approximately one hundred hours of group and individual testing, work sample completion, individualized projects, and situational assessment. \_\_\_\_\_ completed 23 testing instruments, 10 work samples or projects, 3 program try-outs.

REPORT RECIPIENTS DESIRING TO RECEIVE ACTUAL ASSESSMENT RESULTS MAY OBTAIN THEM BY CONTACTING THE STUDENT SERVICES DEPARTMENT AT THE CAPITAL AREA CAREER CENTER.

Standardized measurement instruments assessed \_\_\_\_\_ vocational preferences, educational achievement, fine and gross motor coordination, vocational aptitudes, perceptual discrimination, visual and auditory functioning.

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Source: Ingham Intermediate School District, Division of Vocational Education, Capital Area Career Center, Mason, Michigan.



The results of Evaluation indicate intrapersonal vocational strengths in work habits, appearance, motivation, following directions, tool use, and physical abilities. Possible areas for concern are \_\_\_\_\_ reading and math levels for some programs.

Work samples were selected that allowed \_\_\_\_\_ to explore a variety of occupational areas. This hands-on experience offered \_\_\_\_\_ an opportunity to test her physical, intellectual, behavioral capabilities and emotional requirements, against the worker/trait factors essential for job success. The work samples that were of most interest to \_\_\_\_\_ were in the areas of Sales Clerk and Auto Mechanics, and Food Services.

Based on a careful interpretation of assessment results and examination of job information, \_\_\_\_\_ vocational interests focused on the Auto Mechanics, Business Services, and Parts Control occupation areas.

She participated in training program try-outs in Auto Mechanics, Business Services, and Parts Control. \_\_\_\_\_ greatest interest was noted in the Parts Control Program. The instructor rated \_\_\_\_\_ as having average potential for success in this occupational training area. \_\_\_\_\_ would like experience in the Parts Control and Auto Mechanics Programs. Her first choice was to enroll in Parts Control and when done with that program to enter the Auto Mechanics Program.

A synthesis of all evaluation results led to the following recommendations:

1. *Program Entry.* The vast majority of converging evidence (e.g. test, work samples, counseling, self-report, and program try-outs) indicate that \_\_\_\_\_ would greatly profit from the training experience available at the Captial Area Career Center. \_\_\_\_\_ interest in the areas of Auto Mechanics, Cashiering, and Customer Service make that Parts Control program ideally suited for her. It is recommended that \_\_\_\_\_ enter the Parts Control program as soon as possible.
2. *Supportive Services.* Although \_\_\_\_\_ reading and math skills were not an obstacle to many experiences in evaluation or the completion of the Parts Control try-out, there may be a problem in this area in the future. It is recommended that \_\_\_\_\_ and the Parts Control instructor be cognizant of this possibility. If problems do arise, then perhaps supportive services in reading and math could be initiated by the resource people at Okemos High School. This would be in addition to the related reading and math programs offered at the Captial Area Career Center. Perhaps \_\_\_\_\_ could bring reading work from the Parts Control mods to her home school to study during her resource period. This would provide the individual help with the academics that may be necessary to complete her training.
3. *Follow-along Program.* To insure continuity of service and a consistent match between \_\_\_\_\_ interests and capabilities, and training in career matters, it is recommended that an on-going follow-along program be initiated. This may involve cooperation between Okemos High School staff, people at C.A.C.C., and consultive personnel. Hopefully a follow-along program could be initiated with check points or behavioral milestones where any changes in \_\_\_\_\_, or her fit with the program, could be taken into consideration and assistance given.
4. *Employment.* Part-time employment should be considered for \_\_\_\_\_ in a field consistent with her training program objective. This would enable \_\_\_\_\_ to gain related work experience as well as increase her financial resources.

5. *Contingency Plan.* \_\_\_\_\_, like most people is capable of undertaking training and employment in a number of areas. The program recommendation of Parts Control is based upon a review of the evidence currently available. In the event that the present recommendation for \_\_\_\_\_ proves unfeasible (e.g. demands of the program, interest change, social environmental factors), it is important to have a contingency plan suited to her needs and interests. Other predicted areas for success would be Auto Mechanics, Food Services, and Business Services.

## EVALUATION CHECKLIST

These behavior items are evaluated as they relate to this individual's functioning within our Evaluation Lab. Unless there are comments otherwise, this evaluation only indicates the individual's relative functioning - i.e. what is he or she best at, what are his or her limitations. If it relates to a specific norming group, this will be explained in the "NOTES" section of this report.

- |                           |                                                                     |
|---------------------------|---------------------------------------------------------------------|
| (1) Superior              | - one of this person's strongest points                             |
| (2) Above average         | - person usually exhibits this trait                                |
| (3) Average               | - marginally acceptable within this range                           |
| (4) Below average         | - needs some work in this area to be brought to an acceptable level |
| (5) Unacceptable          | - detrimental to this person's occupational functioning             |
| (U) Unknown or unobserved | - only if no valid judgment can be rendered                         |

| SOCIAL-BEHAVIORAL<br>WORK HABITS                | 1 | 2 | 3 | 4 | 5 | U | COMMENTS                                        |
|-------------------------------------------------|---|---|---|---|---|---|-------------------------------------------------|
| APPEARANCE: Grooming and cleanliness            |   | X |   |   |   |   | Usually neatly dressed and well groomed         |
| ATTENDANCE: Present at worksite.                |   | X |   |   |   |   | Excellent attendance                            |
| PUNCTUALITY: Ready to begin work on time.       |   | X |   |   |   |   | Ready to begin tasks on time                    |
| COURTESY: Polite to other people.               |   | X |   |   |   |   | Polite and courteous to both peers and staff    |
| FOLLOWS RULES: Follows essential regulations.   |   | X |   |   |   |   | Knows and follows rules and regulations         |
| DEPENDABILITY: Reliable and trustworthy on job. |   | X |   |   |   |   | Works well independently until task is complete |